

EDUCATION AND SCIENCE IN 1969

BEING A REPORT OF
THE DEPARTMENT OF EDUCATION
AND SCIENCE

*Presented to Parliament by the Secretary of State for Education and Science
April 1970*

LONDON

HER MAJESTY'S STATIONERY OFFICE

1970

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PART ONE

A GENERAL SURVEY

The launching of a campaign to get rid of oversize classes in the schools, continuing steps to improve the professional status of teachers, and progress in the establishment of polytechnics, were among the more important educational events of 1969. The year was remarkable also for developments at the extremes of the educational age-range, nursery education and the Open University.

The Secretary of State offered new guide lines to the local education authorities in their staffing policies, designed to bring standards in primary schools closer to those in the lower levels of the secondary schools and to eliminate persistent teaching groups of 40 or more, while allowing greater flexibility both to the authorities and their heads of schools. The phasing out of unqualified teachers continued, the introduction of a training requirement for graduates was announced, and agreement was reached on the provision of B.Ed. degree courses for serving teachers. Progress was also made towards setting up a Teaching Council.

The schools again started the year with more pupils on the register, and considerably more secondary pupils were in comprehensive schools in 1969 than in earlier years. There was more voluntary staying-on beyond the school leaving age and sixth forms were becoming more diversified. School building was at the highest level ever authorised, with improved programming procedures; and there was a renewed emphasis on replacement and improvement projects. The number of teachers in training and in service in the schools continued to increase; rumours about considerable unemployment of teachers proved to be unjustified and the distribution of teachers between authorities was satisfactory.

In further education the year's events included the designation of a number of polytechnics, publication of the Haslegrave report on the future of technician education and the introduction of new craft studies courses in the context of industrial training.

The student body continued to increase in all parts of the higher education field and there were a number of discussions, among others with the University Grants Committee, the Committee of Vice-Chancellors and Principals, the Association of University Teachers and the National Union of Students, on the pattern and growth of higher education in the next decade. Increases in university salaries were announced in May, followed by discussions on proposals for new pay negotiating machinery.

The Government's first steps in positive support for pre-school education, announced in 1968, got under way in the implementation of the first phase and the introduction of the second phase of the Urban Programme. At the other end of the scale, for those who were not only over school age but also past the usual age for further and higher education, the Open University was established and a fresh look at adult education was announced with the object of redefining its role in a changing society.

The Secretary of State made a number of visits to different parts of the country and saw a considerable number of educational institutions. In the course of the year he visited over 50 schools and more than a dozen colleges of further education and teacher training. On many occasions he formally opened new buildings; one on which he particularly congratulated the authority was the 150th new school to come into existence in the administrative county of Northumberland since the war; 2 others were community centre and a youth centre.

Mr. Short also instituted the practice of holding public meetings in the form of question and answer sessions. Eight of these were held during the year, and on another occasion the audience consisted of sixth-formers from 3 north London schools. He also attended 3 international conferences on educational subjects. One of these was the Sixth Conference of European Ministers of Education held at Versailles in May; the theme of the conference was educational opportunity for all and Mr. Short's address dealt with the needs of the less academically gifted child.

The Ministers of State also made a considerable number of visits to the kinds of educational establishment with which they were most concerned. Miss Alice Bacon visited over 30 schools and Mrs. Shirley Williams went to a considerable number of institutions of further and higher education—technical colleges and polytechnics, colleges of education and universities—as well as a number of places of scientific research. In October 2 new Ministers were appointed; Mr. Gerald Fowler took over areas of responsibility from Mrs. Williams and Miss Joan Lester replaced Mr. Denis Howell as Parliamentary Under-Secretary of State.

The Queen's Speech in November announced that a Bill would be introduced to require L.E.A.s to prepare plans for reorganising secondary education on comprehensive lines. Consideration was given throughout the education service to the proposals on local government in the report of the Royal Commission. Preparations went ahead on the drafting of a paper outlining proposals for a major Education Act which were to be published in 1970—a year significant also in the annals of education as the centenary of the 1870 Act, for which special plans were being made nationally and locally as the year closed.

The year was also marked by widespread militancy among teachers in support of an interim salary claim.

Numbers in School

In January 1969 the total number of full-time pupils (including the full-time equivalent of part-time pupils) at all schools was 8,418,362—2·6 per cent more than a year earlier and 9·1 per cent more than in 1964. In the maintained sector alone the increases were 2·8 per cent and 10·4 per cent to reach a total of 7,864,956.

New estimates of future school populations were generally lower than those previously published, following the downward revision of the birth rate figures by the Government Actuary's Department. Substantial increases however were expected in the higher age groups, notably at ages 17 and 18, and particularly for girls, because the accelerating trend in voluntary

staying-on at school was expected to continue. The school population was expected to be 10,235,000 in 1980, rising to 11,650,000 in 1990 (300,000 and 167,000 less than previously published figures).

The number of comprehensive schools in England and Wales continued to grow. In January 1969 there were 962 such schools, catering for 772,612 pupils. The number of pupils in comprehensive schools increased by over 230,000 in the 15 years to 1965, and by over 530,000 in the 4 years to 1969. In this period the proportion of the maintained secondary school population in comprehensives rose from 8.5 to over 26 per cent.

Nursery Education

In accordance with the Government's policy of allocating resources to areas in greatest social need the first stage of the Urban Aid Programme (announced in 1968) was put into action and a start made on the second stage. All projects announced so far under this programme will attract 75 per cent government grant.

The first phase, costing £3½m. was devoted to improving the care of young children. Here, it was felt, expenditure could do most good and, being applied mainly to small projects, its effect would be felt earliest. As education's part in the first stage, 23 L.E.A.s were allocated £1.35m. to provide nearly 200 nursery classes in areas selected on the criteria of seriously over-crowded housing or at least 6 per cent of immigrants on school rolls. About 5,250 new places were to result, benefiting many more children who would attend part-time.

The second phase, costing £2m. was announced in February. This widened the range of authorities who could benefit. It continued the provision of nursery places and extended help to deprived areas to include teachers' centres and special facilities for immigrant pupils. The local authorities' response to the invitation for bids was so great that the amount finally allocated was raised to £4½m. About £2m. was allocated to educational projects, £1.335m. to provide a further 5,376 full-time nursery places, the rest going to other educational facilities of the kinds described.

The expansion of nursery education, which is partly the result of the Urban Programme, has given rise to a need for more qualified nursery staff. To help meet this the National Nursery Examinations Board established for a limited period a new intensive one-year course for mature students. The course can be organised in a variety of ways, including day release, block release and sandwich arrangements.

Primary Schools

Educational standards in primary schools were much discussed. On a number of occasions the Secretary of State expressed the view that standards were improving and that at the same time new approaches in the schools gave children much wider experiences than when the greatest emphasis was on the 3 Rs. An objective survey of reading at roughly 5 year intervals since 1948 has shown that, age for age, children had been able to give correct responses to increasingly difficult passages. (A new survey by the National Foundation for Educational Research on 11- and 15-year-olds in 1970 was announced in November.) Reading went hand in hand with

writing and many pupils were now capable of sincere, lively and competent writing; they were encouraged also in the use of the spoken language. In numeracy too there had been advance: children now acquired the basic concepts of mathematics more thoroughly and more lastingly and in ways better suited to their degree of maturity.

Of the building projects authorised to start in 1969-70, 517 (out of 852) costing £36.4m. were for primary schools; as were 543 (out of 859) costing £38.5m. in 1970-71. They were mainly to provide new school places in areas with growing populations but the 1970-71 allocations included nearly 100 projects worth nearly £10m. to replace old buildings mainly in areas of social deprivation.

Secondary Schools

The case against selection at 11 was stated on several occasions by the Secretary of State, who emphasised that the justification for ending such a system was based on both social justice and educational good sense. Success in the 11+ depended to a large extent on the child's social and economic background and on the number of grammar school places available in his area; the test purported "to draw a line among children between whom there is no perceptible difference". Those who were not selected for grammar schools were regarded as failures and "to give any child a sense of failure at 11 is barbarous and immoral".

Further progress was made towards reorganisation on a voluntary basis. By the end of the year 129 out of 163 L.E.A.s had reorganisation schemes approved, 110 for the whole or greater part of their areas. The schemes of a further 11 authorities were under consideration in the Department.

In January Mr. Short announced that the increase in the rate at which pupils were voluntarily staying on at school beyond the statutory leaving age had led to adjustments in the value of the regular building programmes. An additional £20m. would therefore be available, £6m. for building work to start in 1969-70 and £7m. both for 1970-71 and for 1971-72. In addition, in February 15 L.E.A.s were allocated building projects specifically to help with secondary reorganisation, i.e. they were either key projects in the implementation of an authority's scheme or they would substantially improve a scheme already under way. In all, secondary school building projects authorised to start in 1969-70 totalled 335 at a cost of £61.6m.

At the same time Mr. Short announced special building programmes to prepare for the school-leaving age to be raised to 16 in 1972-73. The number of additional pupils was now expected to be 287,000: this was lower than the earlier estimate largely because the higher numbers now staying on voluntarily will have been accommodated by means of the normal programmes. The new programmes totalled £105m. spread over the 3 years 1970-71 to 1972-73, £25m., £35m. and £45m. When the allocations were announced in April most authorities' share was less than £500,000 but for 48 it was between £500,000 and £1.5m. and for 13 it was larger still. Administration of these allocations, which were announced simultaneously for the 3 years, was made as simple as possible and authorities were left free to decide how to use them provided that the projects were compatible with reorganisation.

Major building starts for 1970–71 included 316 middle and secondary school building projects, worth nearly £60m.; all would contribute to the reorganisation of secondary education on comprehensive lines as well as meeting essential needs.

In September the Department's Architects and Building Branch published as the second of their new series of Design Notes an account of the problems met in designing a large extension to a secondary school and the solutions arrived at by Derbyshire L.E.A. in collaboration with the Department.

School Building Programmes

The 1969–70 major starts programme totalled £98m. With the allocations for minor works, special schools and the second year of the E.P.A. programme the total value of work to be started during the year was £139m. In October, 10 authorities in the North and 13 in Wales were allocated an additional £550,000 for minor works to be carried out during the winter of 1969–70. The work was intended to provide extra employment in these areas and the Secretary of State hoped that the authorities concerned would take the opportunity to carry out improvements to schools, particularly primary schools, which might not otherwise have been possible.

The major starts programme for 1970–71 totalled in value £105m.; it included about £10m. worth of work specifically for replacing or improving old premises. (In addition to the provision specifically for improvements and replacements, many basic need projects contain an element of improvement and in some cases allow old schools to be taken out of use in areas of declining population.) In all, the programmes for 1970–71 including minor works and special schools (but excluding the educational share of the Urban Aid Programme) total £138·5m.; the £25m. for raising the school leaving age is in addition to this.

Towards the end of the year a continuing programme of improvements and replacements was announced, starting with a special allocation of £15m. in 1971–72. The total school building programme in prospect for 1971–72 is over £175m., the highest ever authorised.

Examinations

Pupils who left during the school-year 1967–68 did better than ever. Over 40 per cent attempted at least one O-level subject (compared with 33 per cent in 1962–63) and 17·1 per cent attempted A-level (compared with 10 per cent 5 years earlier). Over 21 per cent obtained 5 or more O-level passes and 12·2 per cent obtained 2 or more A-levels (the percentages 5 years earlier were 16 and 7·1).

Comparison of the 1968 G.C.E. summer examination results with those of 10 years previously showed increases at both levels in almost all subjects. The biggest increases in total passes at O-level was in economics (and associated subjects), nearly 4 times as many as in 1958. There were more than two and a third as many successes in the A-level examinations. Passes in French and German showed significant increases at both levels; in mathematics they rose by almost three-quarters at O-level and nearly doubled at A-level; in physics, chemistry and, even more, biology they showed marked increases at both levels; only botany and zoology showed decreases.

Numbers taking examinations for the C.S.E. also continued to rise: there were a fifth more subject entries than in the previous year, with an average of 4 subjects per candidate. English was still the most popular, followed by mathematics, geography, history and technical drawing. Sciences and technical subjects were the biggest subject group with 360,000 entries (43 per cent of the total), arts second with 326,000 (39 per cent). Of the total entries over 95 per cent achieved Grade 5 or better. Grade 4, which indicates a standard of performance to be expected from candidates of average ability for the 16-year age group, was reached or improved upon by 84 per cent of the candidates. Nearly 15 per cent achieved Grade 1, which is equated to a pass at G.C.E. O-level.

In December a report was made to the Schools Council and the Standing Conference on University Entrance on a proposed reform of sixth form examinations. The object was to defer for longer than at present young people's final commitment to a particular career or course and to give 17- and 18-year-olds a more balanced education. In the second half of the 1970s when these proposals might have effect, about a third of the age-group might stay on to 18 and a significant proportion would not intend to go on to higher education.

The School Curriculum

Religious education, technology and metrickation were among the subjects on which guidance and publicity were given during the year.

In March the Secretary of State held a seminar at Windsor attended by about 30 people able to speak from different standpoints and with experience in the practice and problems of religious education. They discussed its purposes, its relationship to society and to the individual, its present effectiveness and desirable future development. A short account of the generally agreed views was issued in the summer as a Report on Education (for which there was such a demand that extra copies had to be printed). Expressing the belief that the vast majority of parents were in favour of the retention of the religious provisions in the new Act, the Secretary of State agreed that the position of the teacher and parents with objections should be safeguarded. L.E.A.s should look again at their agreed syllabuses: they need not be treated as more than suggestions.

The Department continued its efforts to support the campaign run jointly with the Ministry of Technology to interest school-children in engineering as a career. "The Challenge of Engineering" exhibition was shown at Engineers Weeks in Newcastle-upon-Tyne and Birmingham. Opening the earlier one, at the Rutherford College of Technology, the Secretary of State attributed the comparative unpopularity of engineering as a subject on advanced study partly to misconceptions about what an engineer does. The exhibition gave young people a chance to learn the truth; they could question leading engineers and examine exhibits provided by local industry; they could also see technology projects undertaken by school-children themselves.

Earlier in the year Mrs. Williams launched "Women in Engineering Year", aimed at stimulating interest in engineering as a career for women.

She suggested that the reason for the very small number of women engineers in Britain was the belief that the work was unsuitable for girls. D.E.S. with other interested Departments was doing all it could to counter this view, through exhibitions, engineering weeks and science fairs. It was also taking steps to improve the quality of science teaching and to increase the supply of science teachers.

Towards the end of October the Department issued to all schools and colleges suggestions on the introduction of the metric system in the teaching of measures in primary schools and craft subjects, science, geography and home economics in secondary schools. A leaflet commenting on the problems arising from the changeover was enclosed in an Administrative Memorandum. There were good reasons for an early change in lower primary school classes where there were children who, by the time they left school, would find that metric measurement had become normal. Older pupils, however, would be buying and selling, making and measuring, in both systems while the changeover took place, both at home and at work. It was hoped that teachers would plan jointly for the introduction of metric measures and exchange ideas among themselves; opportunities for them to use metric measures and discuss the problems arising would be provided by many of the D.E.S. courses for serving teachers.

Special Education

Because of recent advances in the surgical treatment of *spina bifida* (a congenital deformity of the spine), L.E.A.s were reminded in a circular in May of the likelihood of increased numbers of children born with this handicap needing education. From 1969 it was estimated that on average about 40 per cent would survive to be 5 though there were likely to be considerable local variations. Authorities had been told in 1968 that priority would be given in the special schools building programme to projects providing places for these children. Now they were asked to review numbers likely in their areas and to assess the adequacy of provision for them. These children needed to start their education at the nursery stage if possible, and continuity of care and close links between parents and teachers were important.

For some years there has been a shortage of speech therapists, both in schools and in hospitals. In the summer a Committee of Enquiry into the Speech Therapy Service was established jointly by the Secretaries of State for Education and Science, the Social Services, Scotland and Wales, to examine the situation and to make recommendations on training and deployment.

The importance of the service provided by peripatetic teachers of the deaf was illustrated by a survey of their work published in November. Their duties include assessing the educational needs of children with impaired hearing and visiting those who are in ordinary classes and who may fall behind in their work if their disability is not recognised and they are not given extra help. In many areas also, peripatetic teachers visit the homes of very young deaf children in order to provide guidance and support to the parents. The peripatetic service thus offers the earliest opportunity for the education of young children with impaired hearing and is of basic importance to their subsequent education.

In spite of recent increases in the numbers of trained teachers of the deaf and a resulting expansion of the peripatetic services, peripatetic teachers and trained teachers of the deaf generally are in short supply and it is important that they should be used as effectively as possible. The survey contained a section on the priorities for future developments and concluded with observations on the means by which such developments might be achieved. It stressed the need for "comprehensive and closely integrated educational provision for all children with impaired hearing in which peripatetic teachers of the deaf can play their part in close co-operation with others".

Consultation with a range of bodies followed the Government's acceptance in principle (announced by the Prime Minister in 1968) that responsibility for the education of mentally handicapped children at present borne by the health authorities should be transferred to the education services. These children are under the present law treated as unsuitable for education at school and facilities are provided for them in junior training centres run by local health authorities or in hospitals for the mentally subnormal. In November the Prime Minister announced that legislation to effect the change was to be introduced in the 1969-70 session of Parliament. Speaking about the Government's plans Mr. Short said that the best practice in the training centres had demonstrated that the mentally handicapped can and do respond to education in the sense of development of the whole person which goes beyond child care and social training. It was not intended to retain the junior training centres as a separate category of institution and it would be for the L.E.A.s to say how they proposed to assimilate the existing facilities with their total special school provision. Teachers of mentally handicapped children would be absorbed into the education service and discussions were in progress about future training arrangements.

Teachers

The numbers of teachers in training and in service continued to rise. Statistics published during the year showed that in October 1968 the (provisional) number of students following courses of initial teacher training was 110,245 compared with 100,501 in 1967 and 65,851 in 1964. About 66 per cent of the non-graduate students admitted to colleges and departments of education had one or more G.C.E. A-level passes: these standards were maintained at a time of rapid expansion in the universities.

The total full-time teaching force in October 1968 in maintained schools and colleges in England and Wales was almost 375,000 (including occasional teachers and teachers in occasional service): an increase of nearly 4 per cent on October 1967 and of nearly 17 per cent in the 5 years from 1963. 314,000 (or 84 per cent of the total) were teaching in primary or secondary schools, of whom 58 per cent were women. By February 1969 there were 377,400 full-time teachers, representing a similar rate of increase over 1 and 5 years earlier and indicating a continuing steady growth.

The distribution of school teachers among authorities continued to be satisfactory and at no time in the year did the former shortage areas have any great difficulty in finding teachers. Basic quotas were larger and during the year substantial additional allowances were given for special

purposes—immigrants, educational priority areas and Welsh language. Virtually all requests from local education authorities for extra allocations were met.

During the first 8 months of the year fears were expressed that the financial provision for extension of the teaching force would not be adequate and that thousands of newly qualified teachers would be unemployed in the autumn: and there were some complaints from students, as in the previous year, that jobs were difficult to find. The Department again circulated to colleges and university departments of education lists of authorities with vacancies. In the late summer several authorities had substantial numbers of vacancies left and it was possible to infer that very few newly qualified teachers who were willing to go where the jobs were had remained unplaced. Indeed there was very little evidence of unemployment even among the least mobile of the newly qualified teachers. The widespread impression that students had on average to make more applications than their predecessors in some earlier years may well have been justified and been linked with the manner in which the quota was working. The other side of the picture was that authorities which in earlier years had been in desperate straits were able to fill all or almost all their vacancies.

Class Sizes

In August a circular announced the revocation as from 1st September of the regulation which laid down that the maximum permitted number of pupils should not exceed 40 in a primary class and 30 in a secondary class. The regulation was recognised to be ineffective and anachronistic. It had assumed an undue staffing differential between primary and secondary schools and a rigidity in staffing pattern which restricted the best use of the teaching resources available. The imposition of any alternative set of arithmetical limits on class size was rejected as impracticable: the formal safeguard of minimum staffing standards would in future rest mainly on the provision that in every school there should be suitable and sufficient staff to provide appropriate full-time education.

At the same time the Secretary of State offered 3 guide lines:

- (i) that the standard of staffing in primary schools should be brought progressively closer to that in the lower forms of secondary schools—though the older pupils should not be denied some staffing improvement;
- (ii) that special efforts should be made to eliminate classes of 40 or more;
- (iii) that authorities should continue to supplement their quota by the use of off-quota teachers.

The second guide line, which amounted to a call to everyone concerned to use every sensible means to reduce the size of classes of 40 or over, made it clear that abolishing the 30/40 regulation did not mean any relaxation in the struggle to get rid of large classes, but rather the reverse. The pupil-teacher ratios which had been regarded as targets still constituted a convenient way of calculating what the total supply of teachers should be at any date, even though the detailed calculations implied an outmoded assumption about the relative needs of older and younger children. It therefore

remained the Secretary of State's first objective that the number of teachers should be increased as fast as resources allowed to the same total as had hitherto been regarded as the target.

Earlier, commenting on his intention to abolish this regulation (which had been the subject of discussion with the teacher and local authority associations), the Secretary of State said that head teachers' first priority in their use of teachers should be the elimination of classes of 40 or more. Children should no longer have to be taught regularly by a single teacher for a substantial part of their school time in groups of this size.

The percentage of primary classes which still had over 40 pupils dropped from 10.8 in January 1968 to 9.5 in January 1969 and there were indications in the autumn term of 1969 that there had been a marked further improvement in the position even allowing for the fact that infant numbers are lower in the autumn term.

Professional Status of Teachers

The number of unqualified teachers in the schools continued to fall and by September 1970 they should all have been phased out. In September the Secretary of State announced another major step towards the creation of a fully qualified and trained teaching force, the introduction of a requirement for graduates entering the schools to have had professional training. No-one obtaining a degree after 1st January 1970 would be acceptable as a qualified teacher in a maintained primary school without having satisfactorily completed a course of teacher training: for intending secondary school teachers the date would be 1st January 1974. Thus the graduates of 1969 and 1973 would be the last to be able to teach untrained in maintained primary and secondary schools respectively. Action was taken first in respect of primary schools because teaching methods there had greatly changed in recent years and were strange to the new graduate; advanced subject knowledge was relatively less important and the pupils probably more vulnerable. The secondary schools would not be required to face any loss of untrained graduates until after they had coped with the raising of the school-leaving age.

Arrangements for serving teachers to obtain B.Ed. degrees were also being worked out during the year. L.E.A.s and the colleges were informed in May of interim arrangements by which suitably qualified teachers with 5 or more years' experience could be admitted to the fourth year of existing B.Ed. courses in the autumn.

In June Mr. Short expressed the hope that, in spite of all their problems, L.E.A.s would be able to release some teachers to B.Ed. courses in September 1969. Long-term arrangements to be introduced in September 1970 were announced in December. Consideration was also being given to the establishment of part-time courses leading to B.Ed., including preparatory courses to enable teachers not otherwise qualified to attain a standard sufficient for undertaking a degree-level course.

Discussion also continued during the year on the creation of a Teaching Council which would register teachers, determine standards of entry to the profession, assume responsibility for professional discipline and settle probation policy. For the first time teachers would have the control of their profession in their own hands.

Teachers' Salaries

At the end of January the Burnham Primary and Secondary Committee agreed provisionally on revised salary scales to operate from 1st April 1969 to 31st March 1971 : they represented an increase of 7·1 per cent or about £33m. per annum. The agreement was ratified in March. Commenting the following month, Mr. Short said that progress on the question of teachers' salaries had been real if not spectacular. In four years they had risen by 28 per cent (at the basic salary maximum). Mr. Short stressed that the Government had not retreated from their aim of making the remuneration of teachers reflect the importance of their role in society : he hoped that further progress could be made towards this goal as soon as economic circumstances allowed.

Similar salary increases were agreed later in the year for teachers in other educational institutions.

A claim for an interim mid-term increase of £135 a year for all teachers, to operate from 1st April 1970, was lodged by the teachers' panel in October. On 5th January after three meetings of the Committee at which the teachers' panel had rejected successive offers made by the management panel, the chairman decided to refer the matter to arbitration. There were teachers' strikes in many areas in November and December and in January 1970.

Further Education

In November 1968 students attending grant-aided establishments of further education in England and Wales totalled some 3·1 millions, about 45,000 fewer than in 1967 ; this drop of less than 1½ per cent was largely the result of falling numbers among evening institute students and those not seeking recognised qualifications. A marked increase was shown in particular in the numbers on full-time and sandwich courses which rose in a year by 8·8 and 19·4 per cent respectively compared with only 1·2 per cent for part-time day courses ; the numbers of those on evening courses at major establishments fell by 6·7 per cent and in evening institutes by 1·8 per cent.

In the higher education sector of further education the number of students taking advanced level courses leading to recognised qualifications increased by 4 per cent in the year, compared with an increase of 11 per cent the previous year. The numbers taking C.N.A.A. first degree courses increased by 37·6 per cent, and almost caught up with the total taking courses leading to external university degrees (13,978 as against 14,213). H.N.D. numbers rose by 15·6 per cent while enrolments for part-time courses leading to the H.N.C. fell by over 8 per cent, reflecting the great expansion in the opportunities open to young people to take full-time or sandwich courses of higher education.

Enrolments for non-advanced courses leading to a recognised qualification rose by about 14,500 or over 1·5 per cent, to 960,260 ; and within this total the enrolment for City and Guilds courses (together with courses leading to the examinations of the various regional examining unions) again exceeded half-a-million. Enrolments also included over 236,000 for G.C.E. (mainly O-levels). As at the advanced levels, the numbers on full-time and sandwich courses rose more rapidly (by 7·5 per cent) than those on part-time day courses (2·1 per cent) : numbers on evening courses leading to recognised qualifications fell by over 2 per cent.

Considerable progress was made during the year towards the establishment of the 30 polytechnics envisaged when the creation of a limited number of major centres of higher education was proposed. Schemes for the establishment of almost all were submitted by local education authorities and many were approved by the end of the year. The first 3 polytechnics were formally designated at the beginning of the year and 5 more later; another 6 were designated early in January 1970.

Commenting on the way in which the polytechnics might develop the Secretary of State laid stress on their "comprehensiveness" in having in the same subjects parallel streams of honours degree, ordinary degree and H.N.D. students who could move laterally from one to another. Arrangements for transfer from degree to H.N.D. courses had been made between some universities, particularly certain of the technological universities, and further education colleges, and there may well have been some movement the other way. Links of this nature were important. So too were arrangements with universities for the sharing of specialist facilities and well-qualified staff and the joint provision of specialist courses. There might come a time when the 2 halves of the so-called binary system might be far less distinguishable than at present.

In January the Secretary of State invited local education authorities and colleges of further education to adopt a new system of courses of further education for trainee engineering craftsmen which it was hoped would be introduced generally in the colleges from September. The new courses are designed for students following training programmes in engineering and allied trades of the kind recommended by the training boards for the engineering, electricity supply, iron and steel and shipbuilding industries. Known as "craft studies" courses, they will provide a comprehensive framework of further education in engineering craft subjects, and replace most of the existing craft practice courses after a limited transition period. Initially, craft studies courses will be provided in mechanical engineering and instrument production, electrical and electronic engineering, fabrication and welding engineering, ship-building and vehicle body work. It is likely that other subjects will later be brought within the system.

Mr. Short saw the introduction of the new system as an important landmark in the joint planning of training and associated further education within the framework of the Industrial Training Act, and he commended the speed and effectiveness with which the joint advisory committees had carried out their complex task. This modular system would enable apprentices to acquire several skills more rapidly than previously. Quite apart from the personal satisfaction to be gained from such a course, this training would enable occupational changes to be made with relative ease.

The total number of day release students of all ages in November 1968 was 643,771. There was a drop in the total number of students under the age of 18 given day release (including block release) by their employers: this was because there were fewer people in this age group and more were tending to stay on in school, and because a growing number of young workers in the age group were taking full-time integrated courses in the technical colleges instead of part-time day release courses. Of the total insured work force under 18, 23.8 per cent received some form of part-time day release.

in November 1968, 38·7 per cent of the men but only 9·6 per cent of the women.

The report of the Committee on Technician Courses and Examinations was published in December. It recommended radically new arrangements for the planning, co-ordination and administration of examinations and qualifications in the technical and business sectors of further education for technicians and proposed a new pattern of courses which would ultimately replace that of the present City and Guilds and national certificates and diplomas. Thanking Dr. Haslegrave and his colleagues for their work, the Secretary of State said that, as a first step, he would be seeking the views of those directly concerned.

The Welsh National Agricultural College which is to be established near Aberystwyth, was brought considerably nearer during the year. First, allocations were included in the 1969-70 programme of further education building starts for work on the first instalment of teaching accommodation and for student facilities to be used jointly by the new college and the College of Librarianship. The College will be part of a group of further education institutions on the Llanbadarn campus. Then in September the first principal was appointed. The first intake of students is expected to be in 1971, and it is hoped to offer courses leading to H.N.D. and O.N.D. in a range of subjects related to farming in Wales. Towards the end of the year further building work, on the second instalment of teaching accommodation and a hostel, was authorised to start in 1970-71.

The Universities

There were 219,000 students in the universities of Great Britain in the academic year 1969-70. In April the House of Commons was informed of plans to increase the intake to medical schools from just under 2,700 in 1968-69 to 3,700 by 1975.

Government financial support through the U.G.C. and the Computer Board for the universities' capital and recurrent costs in the financial year 1969-70 was estimated at £242m. In February the Secretary of State announced supplementary recurrent grants for the last 3 years of the present quinquennium, to take effect from April 1970; these took account of salary and price increases between July 1967, the beginning of the quinquennium, and July 1968. A further, smaller, increase was announced in September to take account of more recent price increases and the rise in April in university technicians' salaries. In all, recurrent grant for the academic year 1969-70 was increased from £159·5m. announced in the quinquennial settlement to £162·7m.

The first report of the National Board for Prices and Incomes under the standing reference on university teachers' salaries was published at the end of 1968. The government accepted the recommendations which directly affected the salary levels of individual members of staff, to take effect from 1st October 1968. Mrs. Williams saw a deputation from the A.U.T. to discuss machinery for the negotiation of university salaries, and discussion with other interested parties followed. In May Mrs. Williams announced some further decisions made in the light of this report and that of the Review Body on Doctors' and Dentists' Remuneration. These included a further

general pay increase for grades below professor; and the introduction of discretionary payments to individuals in these grades in recognition of special excellence in teaching or an exceptional teaching or administrative work load; and of a system of distinction awards to professors for outstanding merit, particularly in the establishment and running of teaching departments. Altogether these proposals would add about 4 per cent (about £2.2m.) to the cost of university salaries. With the December 1968 improvements the overall salary increase came to about 7 per cent between April 1966 and October 1968, i.e. within the ceiling of $3\frac{1}{2}$ per cent annually.

The first report of the Computer Board for Universities and Research Councils showed a substantial improvement in the quality and power of computing facilities to back research in British universities. During the period covered, from September 1966 to 31st October 1968, the Board had provided or ordered computing equipment totalling about £14m. This sum covered the provision of 32 new computers together with the additional equipment required to enhance the power and facilities of existing machines. For the future, the Board had introduced a procedure for obtaining regular estimates of their needs from universities. These would not only provide a more reliable basis for the Board's estimates of requirements for research computing in universities, but would assist the transition to a period in which the Flowers Report was no longer relevant as a guide.

The Open University and Adult Education

The Planning Committee, appointed in September 1967 to work out a comprehensive plan for an Open University, published its report in January 1969 and the outline proposals were immediately accepted by the Government. Students enrolments were expected to begin in 1970 and courses to start in January 1971. As planned by the Committee the university would combine all the potential of modern technology, both in broadcasting and in the presentation and recording of material, with correspondence tuition, discussion and personal guidance to provide education of the highest standards for those who had been deprived of it or not attracted to it on a full-time basis in a traditional institution. Its students would be mainly adults—the young, it was thought, would be better off, full-time or part-time, in educational institutions of the traditional kind.

No formal qualifications would be required for entrance but it was essential that standards of work should be seen to be as stringent as any in the country; it was intended that they should be so. Degree courses would differ from those offered by traditional universities, partly because they derived from new and interesting educational trends, such as an interdisciplinary approach, which would be deliberately encouraged. The degree offered would be general rather than narrowly specialist, covering a wide range of subjects. The course structure would be flexible, allowing students a wide choice. Students would begin their courses with a range of educational experience and so for the first year would take a foundation course. Courses would be devised so as to stimulate the interest of students with very varied backgrounds and at the same time to make the intellectual demands expected in a first-year university course.

In March it was announced that the headquarters of the university would be at Milton Keynes, the site of the new city. The Royal Charter establishing the university as an autonomous institution was granted by H.M. The Queen on 30th May. (Because of the many ways in which the university would differ from others in this country, it is being grant-aided initially not through the University Grants Committee but direct from the Department of Education and Science.) On 23rd July at the Royal Society, the Charter was formally presented to the university by the Clerk to the Privy Council and the Chancellor Lord Crowther was installed before the first congregation of the university.

An inquiry into adult education in England and Wales was announced in February. This important part of the education service has grown considerably in recent years and a new definition is sought of its role in a changing society. The committee met for the first time in April under the chairmanship of Sir Lionel Russell. Later in the year they visited practitioners in the field; and invited written evidence on the need and the demand for adult education, both in the present and over the next 20 years, and on the adequacy in quality and quantity of the present provision in the light of changing needs.

In July an international conference on "Adult Education in a Changing Europe" was held at Liverpool University, sponsored by the Government under the auspices of the Council of Europe.

The Youth Service

In October the Youth Service Development Council's report "Youth and Community Work in the 70s" was published. In preparing the report the Council took into account the work of two sub-committees; one, under the chairmanship of Mr. A. N. Fairbairn, was asked to study the relationship of the Youth Service with schools and further education; the other, under Dr. F. W. Milson, reported on the relationship of the Youth Service with the adult community.

In a foreword the Secretary of State said that nearly 10 years ago, following a recommendation of the Albemarle Committee, the Y.S.D.C. was set up to advise on the progress of the service in England and Wales. As the decade drew to a close the Council had turned their attention to the future of the service. Mr. Short commended their very thorough study and expressed the belief that the new imaginative approach they had brought to their task would make a major contribution to future thinking about the development of youth work. The Government were examining the wide issues raised by the report in consultation with the many bodies concerned and would announce their conclusions in due course.

The Council's researches and examination of the service had convinced them that youth work was valuable but that it could no longer remain isolated from general community activities. The circumstances of young people, whether staying on at school or going out to work, had changed since the Albemarle Committee reported and their earlier maturity was generally recognised. The same provision could not meet the needs of everyone from 14 to 20. The Committee therefore recommended a new policy designed to point ways ahead for the next 10 years and to bridge the existing gaps. A redesigned Youth and Community Service should meet

the needs of young people wherever they were to be found—the service ceasing to be identified with the club—and recognise them as part of the community. Hard and fast dividing lines would no longer be appropriate ; there would be no lower or upper age limit and relationships between the service and many aspects of industry, the social services and education would need to be strengthened both centrally and locally. The Council's detailed recommendations required action by the Department, the local authorities, the L.E.A.s, voluntary organisations, training agencies, the Churches, the trade unions, commerce and industry. The bodies concerned were asked to express their views on the proposals by the end of the year.

The National Libraries

The Report of the National Libraries Committee, of which the chairman was Dr. F. S. Dainton, was presented in June. The Committee's main recommendation was that a National Libraries Authority should be established to incorporate the British Museum Library (including the National Reference Library of Science and Invention), the National Central Library, the National Lending Library for Science and Technology, and the British National Bibliography. On the siting of the replacement for the British Museum Library their conclusion was that on library consideration alone the Bloomsbury site was the most suitable. If for other reasons it was decided that this was not acceptable, a site should be found in central London in an area which would be convenient for Bloomsbury and the Aldwych. The National Reference Library for Science and Invention should also be situated in central London, a major consideration in this case being the convenience of patent workers.

In announcing the publication of the report, the Secretary of State paid tribute to the work of Dr. Dainton and his colleagues, and explained that decisions would be taken on their recommendations after the report had been further studied and consultations had taken place with the bodies directly concerned. The process of consultation was continuing during the latter part of 1969, comments being received from a large number of organisations.

Postgraduate Awards

Arrangements for central government to take over from L.E.A.s responsibility for new awards to postgraduate students were settled early in the year. Support for courses leading to higher degrees and other courses recognised as postgraduate in content was accepted as the responsibility of the appropriate research council or government department, and local education authorities were advised that, pending legislation that would remove their discretionary powers, they should make no new awards for these courses. An essential feature of the process of centralisation was that the distribution of awards for postgraduate study should be rationalised and more closely related to national needs for highly qualified manpower. Therefore awards would not necessarily be given to every student who was qualified or accepted for a course.

At the same time awards, known as bursaries, for postgraduate courses in art, music, drama, librarianship, museum studies, languages, architecture and theology, became the responsibility of the Department of Education and Science. (These are distinct from state studentships in the humanities, which

continue to be awarded under the existing scheme.) A number of bursaries for the academic year 1969–70 was allocated to individual departments or institutions, or for particular courses, but a quota was not necessarily available for every institution or course even if it had previously received support from local education authorities for postgraduate students. The bursaries are assessed on the same lines as the grants paid to undergraduates, and are liable to a parental contribution.

Awards for postgraduate courses in management and planning became the responsibility of the Social Science Research Council. Following a survey among universities and further education colleges the Council found that a larger number of awards had been made by L.E.A.s in the last two years of their responsibility than had been allowed for: the Council therefore asked the Department for additional funds. These were granted in full and the Council was able to award in 1969–70 400 bursaries, 300 in management and 100 in planning.

Science Policy

Although the Department's expenditure on civil scientific research, mainly in the form of grants-in-aid to the Research Council, again rose, the increase was less than last year, i.e. the "growth rate" was slowing down.

The Council for Scientific Policy (C.S.P.) advises the Secretary of State on the allocation of funds between the Research Councils (except the S.S.R.C.) and the greater part of its work in the year was concerned with the science budget, which embraces the activities of the Councils and some other bodies. In making its assessments and recommendations, the C.S.P. considers the proposed programmes of the Research Councils for the next five years. A high proportion of their future expenditure is always committed by decisions taken in earlier years, both on the development of scientific research in the United Kingdom and on United Kingdom participation in international co-operative scientific projects such as the European Organisation for Nuclear Research (C.E.R.N.) and for Space Research (E.S.R.O.); thus the declining growth rate of the science budget leaves little room for manoeuvre in new areas of investigation. The C.S.P. has therefore paid special attention to evaluating the way in which the money available is applied to the research effort both in university departments and Research Council units and institutes. The direction of its thinking is indicated by the various working groups and feasibility study groups which the C.S.P. has set up, e.g. on the relationship between pure and applied science and its relevance to industrial needs; the system by which scientific research in the universities should be supported; the economic benefits of scientific research; and the utilisation of biological manpower.

In October the Science Research Council announced a reorganisation of its Board structure, to improve the efficiency of its operation and to reflect its current needs more clearly. The creation of separate Science and Engineering Boards not only gave more prominence to the support of research and postgraduate education in engineering in its many forms, but also provided the Council with a body to advise it on its functions relating to industry other than research and development, such as training scientists and engineers to be employed in design and manufacturing. The Council

developed its policies of selectivity and concentration on particular fields of study likely to yield scientific advance or economic or social benefit; of giving priority in studentship awards to advanced courses and research training related to industrial needs, and of limiting its support of increases in academic research staff in order to free scarce manpower for industry and school teaching. In the field of European collaboration, British scientists' experiments were flown in E.S.R.O.'s fourth satellite, B.O.R.E.A.S., launched in October, and in Australia the formal agreement for collaboration in the £5m. Anglo-Australian optical telescope project was signed in September.

In 1969 the Natural Environment Research Council intensified its investigation of the United Kingdom Continental Shelf, especially in connection with hydrocarbon (oil and gas) possibilities; special funds were made available for a major shallow boring programme to investigate the prospects for other minerals. The Council co-ordinated the investigation of an unusually large number of deaths of seabirds in the North Irish Sea and Clyde area in September and October.

During the year it was decided that the Social Science Research Council should set up the first three units to conduct its own research—to provide survey facilities for social science researches, to conduct research on racial relations, and to study industrial relations.

In December the Advisory Committee on Pesticides and Other Toxic Chemicals, which reports to the Secretary of State and other Ministers, published its findings* on the persistence of certain pesticides and recommendations for control of their use. Its recommendations were generally accepted by the Government.

The value of Government support for civil science has been agreed up to 1971–72. In 1970–71 the Science Budget, from which the Research Councils (except the S.S.R.C.) and some other bodies are financed, will increase, after taking into account certain transfers of function, by 6·4 per cent. The allocations for the S.S.R.C. reflect the expected expansion in the work of this recently created Council.

Finance

In 1968–69 for the first time expenditure on education exceeded that on defence. Expenditure in Great Britain on education as a whole (including local libraries and museums) in 1968–69 was over £2,200m., more than 6 per cent of the gross national product. Of this local authorities, with the help of rate support grant, spent more than 80 per cent. Local authority services employ well over one million people, half of them teachers, whose salaries account for nearly half of the expenditure.

A White Paper published in December set out the Government's plans for public expenditure in the period up to 1971–72. The main influence on educational expenditure in the period is the increase in numbers. Between 1968–69 and 1971–72 total numbers in schools will rise by about 7 per cent, in primary schools by 6 per cent and in secondary schools by over 9 per cent. Numbers of students in further and higher education as a whole are expected to rise by over 10 per cent in the same period. Universities and

* *Further Review of Certain Persistent Organochlorine Pesticides used in Great Britain*. Report by the Advisory Committee on Pesticides and Other Toxic Chemicals: H.M.S.O., 12s. 6d. [62½p].

colleges of education and further education will continue to expand accordingly. Between 1967 and 1971 the proportion of the age-group entering full-time and sandwich courses in higher education is expected to rise from 14 per cent to about 20 per cent. To maintain existing standards of provision for rising numbers current expenditure on schools must rise by about 8 per cent and on post-school education by rather more than 10 per cent. Current expenditure on primary and secondary schools is expected to rise by 11 per cent and on further and higher education by 15 per cent. Some margin of expenditure is therefore available for the improvement of standards.

Towards the end of the year there were informal discussions about higher education in the 1970s and 1980s. Revised projections showed a large increase (compared with previously published figures) in the numbers of school-leavers and others who on current trends would obtain appropriate qualifications for entry to higher education. If assumptions similar to those embodied in the Robbins Report were applied to these revised projections, the number of full-time places in higher education required in the mid-1970s and beyond would be over 40 per cent higher than those recommended in the Robbins Report. In England and Wales in 1981-82 for example there would be, on this basis, 727,000 full-time students in higher education in England and Wales compared with the Robbins estimate of 510,000; 597,000 would be in universities and advanced further education, the remainder in colleges of education.

If expansion of this order were to be achieved it would put a great strain on the resources likely to be available. A variety of suggestions which might contribute to the solution of this problem were considered during discussions on the future growth and structure of higher education between the Department and the U.G.C., the Committee of Vice-Chancellors and Principals, the A.U.T. and the N.U.S. The topics covered included student support, rationalisation of courses, sharing of facilities, and the type and organisation of students' residence. The suggestions discussed were in no way positive proposals and no conclusions were sought at the meetings.

The Department's planning for the future is based on statistical information built up from records of individuals' educational careers. In December the Secretary of State assured the House of Commons that the confidentiality of these records was safeguarded; they did not include information on an individual's politics, religion or character.

PART TWO

THE YEAR'S EVENTS

SECTION I

THE SCHOOLS (ENGLAND AND WALES)

Introduction

1. All matters relating directly to the schools of England and Wales are dealt with in this section of the report. The school population, the supply of schools, school building policy, teacher supply in the maintained sector are reviewed first, followed by a progress report on secondary reorganisation, notes on the urban programme and nursery education and on the education of immigrant children. Then follows information on schools not maintained by the local education authorities, together with paragraphs on the School Council, the education of handicapped children, school health, meals and milk.

1. Maintained Schools

a. POPULATION

Numbers

2. The total maintained school population continued to increase. In January there were 7,753,002 full-time pupils on the registers of maintained primary and secondary schools (other than nursery and special schools) in England and Wales, 211,033 more than in January 1968.

TABLE 1.—*Numbers of pupils(i) on the registers of maintained primary and secondary schools (other than nursery and special schools)*

Year (January)	Number of Pupils (000)			
	Infants	Juniors	Seniors	Total
1959	1,753·0	2,431·0	2,717·0	6,901·0
1964	1,735·8	2,443·2	2,854·7	7,033·7
1968	1,969·6	2,685·7	2,895·0	7,550·4
1969	2,031·8	2,767·6	2,965·1	7,764·4

(i) Part-time pupils have each been counted as half a pupil.

3. The proportions of 15-, 16- and 17-year-old pupils in maintained schools were as follows:—

TABLE 2.—*Numbers and proportions of 15-, 16- and 17-year-old pupils*

Year (January)			Age 15		Age 16		Age 17	
			Number (000)	Percent- age of age group	Number (000)	Percent- age of age group	Number (000)	Percent- age of age group
1959	...	...	185·1	29·2	88·3	14·6	37·5	7·0
1964	...	...	383·6	51·3	160·8	19·0	75·7	9·8
1968	...	...	389·5	59·8	171·0	25·9	90·8	13·3
1969	...	...	407·4	61·6	182·6	27·9	95·9	14·5

4. The total number of pupils in sixth forms increased by 6,583 to 198,416.

b. SUPPLY OF SCHOOLS

School Building

5. During the year 664 primary and 83 secondary schools were completed. With the extra places made available by alteration or extension of existing schools these provided places for 233,506 primary and 134,130 secondary pupils. School building projects were under construction at the end of the year to provide a further 164,468 primary and 204,520 secondary school places.

6. The number of school places to be provided in major and minor school building projects started in recent years were as follows:—

TABLE 3.—*Places started in major and minor school building projects*

Calendar Year				Primary Places	Secondary Places	Total
1965	...	...	...	148,500	92,500	241,000
1966	...	...	...	209,500	96,500	306,000
1967	...	...	...	253,500	125,500	379,000
1968	...	...	...	232,500	138,000	370,500
1969	...	...	...	197,000	102,000	299,000

Establishment of New Schools, Significant Enlargements, Changes in Character and Discontinuance of Schools

7. A number of proposals were approved by the Secretary of State during the year under Section 13 of the Education Act 1944, as amended:—

TABLE 4.—*New schools, significant enlargements and changes in character approved*

	New schools		Significant enlargements		Significant changes in character		Total
	Primary	Second-ary	Primary	Second-ary	Primary	Second-ary	
County	350	123	177	245	251	190	1,339
Voluntary:							
Church of England...	23	9	67	32	89	22	242
Roman Catholic ...	35	14	57	34	44	32	216
Church in Wales ...	—	—	—	1	1	1	3
Methodist	—	—	—	2	—	—	2
Undenominational ...	—	—	—	2	—	2	4
Total Voluntary ...	58	23	124	71	134	57	467
Total all schools ...	408	146	301	319	385	247	1,806

TABLE 5.—*Discontinuance of schools approved*

	Primary	Secondary	Total
County	155	168	323
Voluntary:			
Church of England ...	129	11	140
Roman Catholic	11	10	21
Church in Wales	14	—	14
Methodist	2	—	2
Undenominational ...	—	—	—
Total Voluntary	156	21	177
Total all schools	311	189	500

8. These figures include proposals for the discontinuance of 167 schools rural areas of which 24 were secondary schools. Of the remaining 143 schools (26 of which are to be replaced by new schools in the same area), 52 are in county, 72 Church of England, 3 Roman Catholic, 2 Methodist and 1 Church in Wales.

9. Two voluntary schools closed on the initiative of the managers under Section 14 of the Education Act 1944.

Voluntary Schools

10. In January there were 9,461 voluntary schools and departments in England and Wales, of which 5,228 were aided, 156 special agreement, and 4,077 controlled.

11. Table 6 shows voluntary school projects included in the 1969–70 building programme and the accommodation brought into use during 1969–70. In addition, it is estimated that more than 21,545 places were provided in voluntary schools by minor works.

TABLE 6.—*Voluntary school building*

	Projects authorised to start in 1969-70						Accommodation brought into use during 1969					
	Church of England (including Church in Wales)		Roman Catholic		Other voluntary bodies		Church of England (including Church in Wales)		Roman Catholic		Other voluntary bodies	
	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places
Aided	53	15,330	98	28,725	2	740	40	10,950	81	22,945	1	360
Special Agree- ment...	—	—	1	150	—	—	—	—	—	—	—	—
Con- trolled	34	7,500	—	—	2	720	40	10,050	—	—	3	1,620
TOTALS	87	22,830	99	28,875	4	1,460	80	21,000	81	22,945	4	1,980

12. Payments of grants during 1969 amounted to £15,191,941 and brought the total since 1945 to £121,556,790, of which £79,884,610 had been paid at the rate of 75 per cent authorised by the Education Act 1959 and £23,211,057 at the rate of 80 per cent authorised by the Education Act 1967. These grants represent the amount claimed and paid up to the end of 1969 on major and minor building projects, together with grants on minor alterations and repairs.

13. One hundred and fifty-one new loan agreements were concluded during the year for loans amounting to £1,777,210. Loan advances of £2,082,153 during the year brought the total advances to £24,313,865.

TABLE 7.—*Grants and loan advances during 1969*

	Church of England schools (including Church in Wales)		Roman Catholic schools		Other voluntary schools	
	Grants	Loan Advances	Grants	Loan Advances	Grants	Loan Advances
	£	£	£	£	£	£
Alterations and re- pairs at aided and special agreement schools	2,066,033	86,115	2,278,101	198,154	364,411	Nil
Transferred and sub- stituted schools...	1,202,745	151,685	1,186,161	279,495	14,797	Nil
Schools for displaced pupils	5,110	Nil	373,749	23,100	Nil	Nil
Secondary schools to match primary schools (1959 Act, Section 1(2)) ...	329,881	69,300	1,423,997	382,200	Nil	Nil
Special Agreement Schools	Nil	Nil	Nil	26,740	Nil	Nil
New places under the Education Act 1967	777,235	87,470	4,310,455	700,368	2,090	Nil
Significant enlarge- ments of existing schools	130,128	2,000	724,582	63,760	2,466	11,766
TOTALS	4,511,132	396,570	10,297,045	1,673,817	383,764	11,766

School Building Policy

14. The major building starts programme for 1969–70 announced in 1968 was increased in February by additional projects to the value of £4m authorised specifically to help secondary reorganisation in the areas of 11 authorities. Projects selected for the main 1969–70 design list* in the expectation that building work would start in 1970–71 were notified by April. Further projects were added in September. Virtually all the projects in the design list were included in the starts programme for 1970–71 which was announced in October. The total value of the programme was £105m. This was mainly applied to the provision of new school places in areas of growing population; but about £10m. was allocated to the improvement or replacement of old school premises, particularly primary schools in socially deprived areas. Secondary projects authorised to accommodate extra numbers also contributed to secondary reorganisation. The next stage under the new procedure was the compilation of the preliminary list, which was completed by the autumn. Projects included in it were eligible for inclusion in the 1970–71 design list, the preparation of which was in hand at the end of the year. It was announced in November that the design list would also include additional projects for the improvement and replacement of old schools to the value of about one sixth of the programme for basic needs.

15. In April authorities were notified of their lump sum allocations for the three years 1970–73 for buildings required for raising the school leaving age in 1973. The total resources of £105m. were linked with an addition of £20m. to the ordinary school building programme spread over the three years 1969–72. This was to provide for the increase in the rate of voluntary staying on beyond the statutory leaving age after the original plan to raise the age in 1971 was postponed.

16. The policy of giving longer notice of authorised programmes was extended by the notification in November of authorities' shares of the minor works programme for both 1970–71 and 1971–72. The resources available for each of the two years amounted to over £27m. Additional minor works totalling about £0.5m. were authorised for 1969–70 for the relief of winter unemployment in the north of England and in Wales.

c. SUPPLY OF TEACHERS†

Qualified Teachers

17. There was a further large increase in the teaching force. There were over 15,000 (nearly 5 per cent) more full-time teachers in service in February 1970 than in February 1969. The pupil-teacher ratio in February 1969 showed an improvement of 0.3 over the 1968 figure, as much as for the two preceding years together. A similar improvement is expected in 1970. Table 8 summarises the figures.

* See *Education and Science in 1968*, Section VI, paragraph 42.

† All figures in this section relate to teachers in maintained primary and secondary schools (other than nursery and special schools).

TABLE 8.—*Qualified teachers(i)*

1st February	1966	1967	1968	1969	1970(ii)
Full-timers:					
Men	121,804	124,405	127,515	131,229	135,778
Women	162,338	165,791	170,556	179,519	190,030
Total	284,142	290,196	298,071	310,748	325,808
Part-timers (full-time equivalent)	14,272	16,206	18,874	19,444	18,627
Total	298,414	306,402	316,945	330,192	344,435
Increase during previous year...	6,322	7,988	10,543	13,247	14,243
Pupil/teacher ratio	24.1	23.9	23.8	23.5	23.2

(i) Including former uncertificated and supplementary teachers whose service is protected.
(ii) Provisional.

18. Work continued on the comprehensive enquiry into the wastage of qualified men teachers during 1968–69, which was commissioned in 1968 from the Government Social Survey.

Graduate Teachers

19. The provisional figures for 1968 show a relatively small increase over the revised 1967 figures. Progress is summarised in Table 9. The Department continued, in its press advertising, to concentrate on recruiting graduates in science and mathematics.

TABLE 9.—*Full-time qualified graduate teachers*

31st March	1965	1966	1967(i)	1968(ii)
Men	37,470	37,810	38,541	39,113
Women	21,337	21,682	22,804	23,089
Total	58,807	59,492	61,345	62,202

(i) The figures for 1967 supersede those previously published.
(ii) Provisional.

Compulsory Professional Training

20. In September the Secretary of State announced a major step towards a fully qualified and trained teaching profession in the introduction of a training requirement for graduates and holders of other qualifications hitherto acceptable as qualified teachers without any training in teaching. There was a high rate of turnover of untrained teachers and their lack of training created difficulties both for them and for their pupils. The shortage of teachers was now less severe and the risk of losing a small number of untrained graduates was worth taking to achieve a reform which had for many years been widely advocated. The Secretary of State therefore intended to require that no one obtaining a degree, or certain other qualifications,

after 31st December 1973 would be accepted as a qualified teacher in maintained secondary schools unless he had also satisfactorily completed a suitable course of professional training. The Secretary of State said that he would have liked to set an earlier date but the secondary schools should not suffer the loss of untrained graduates until after 1973-74, when they would take the full strain of extra numbers consequent on the raising of the school leaving age. In addition, due notice must be given in fairness to individuals. For the primary schools, where the educational case for training was even stronger, he proposed to act much sooner; the critical date of acquisition of the degree or other qualification would be 31st December 1969. Circular 18/69, issued in December, and the Schools (Qualified Teachers) Regulations 1969*, which came into effect on 1st January 1970, defined the arrangements for the first phase of the new policy.

Unqualified Teachers

21. The numbers of unqualified teachers in the schools have continued to decrease rapidly since the issue of circular 15/68†, under which temporary and occasional teachers should cease to be employed by the end of August 1970. The figure of over 11,000 unqualified teachers in February 1967 has shrunk by February 1970 to about 2,600, apart from some 2,700 in the new categories of instructor and student teacher. Table 10 shows the figures.

TABLE 10.—*Unqualified teachers*

1st February	1966	1967	1968	1969(i)	1970(i) and (ii)
Full-time temporary teachers:					
Men	1,658	1,681	1,194	737	359
Women	3,650	3,824	3,077	1,805	904
Total	5,308	5,505	4,271	2,542	1,263
Full-time occasional teachers:					
Men	184	188	152	145	131
Women	2,305	2,328	2,054	1,546	935
Total	2,489	2,516	2,206	1,691	1,066
Full-time equivalent of part-time unqualified teachers ...	3,153	3,586	3,396	3,479	2,940
Total	10,950	11,607	9,873	7,712	5,269

(i) Student teachers are included with temporary teachers and "instructors" with occasional teachers, for the purposes of comparison with earlier years.

(ii) Provisional.

Distribution of Teachers

22. Distribution under the quota continued to be satisfactory. It was less uniform in October 1969 than in the preceding school year; but no area was as seriously short as some areas had been in the recent past. Very few of the authorities which in the past suffered from chronic shortage

* S.I. 1969 No. 1777, H.M.S.O., 6d. [2½p].

† See *Education and Science in 1968*, Section I, paragraph 26.

nursery education

is desirable for many children but it benefits particularly those in socially deprived urban areas and areas of high density housing including tower blocks of modern flats. The Govern-

ment's Urban Programme includes the provision of nursery schools and classes in areas where they are most needed. See Part I page 11 and Part II Section I paragraph 36.









has changed markedly in recent years. Teaching methods and school design have become more child-centred, providing a stimulating environment in which a wide

range of experience encourages children to enjoy learning, to understand as well as acquiring information, and to find out for themselves. See Part I page 11.









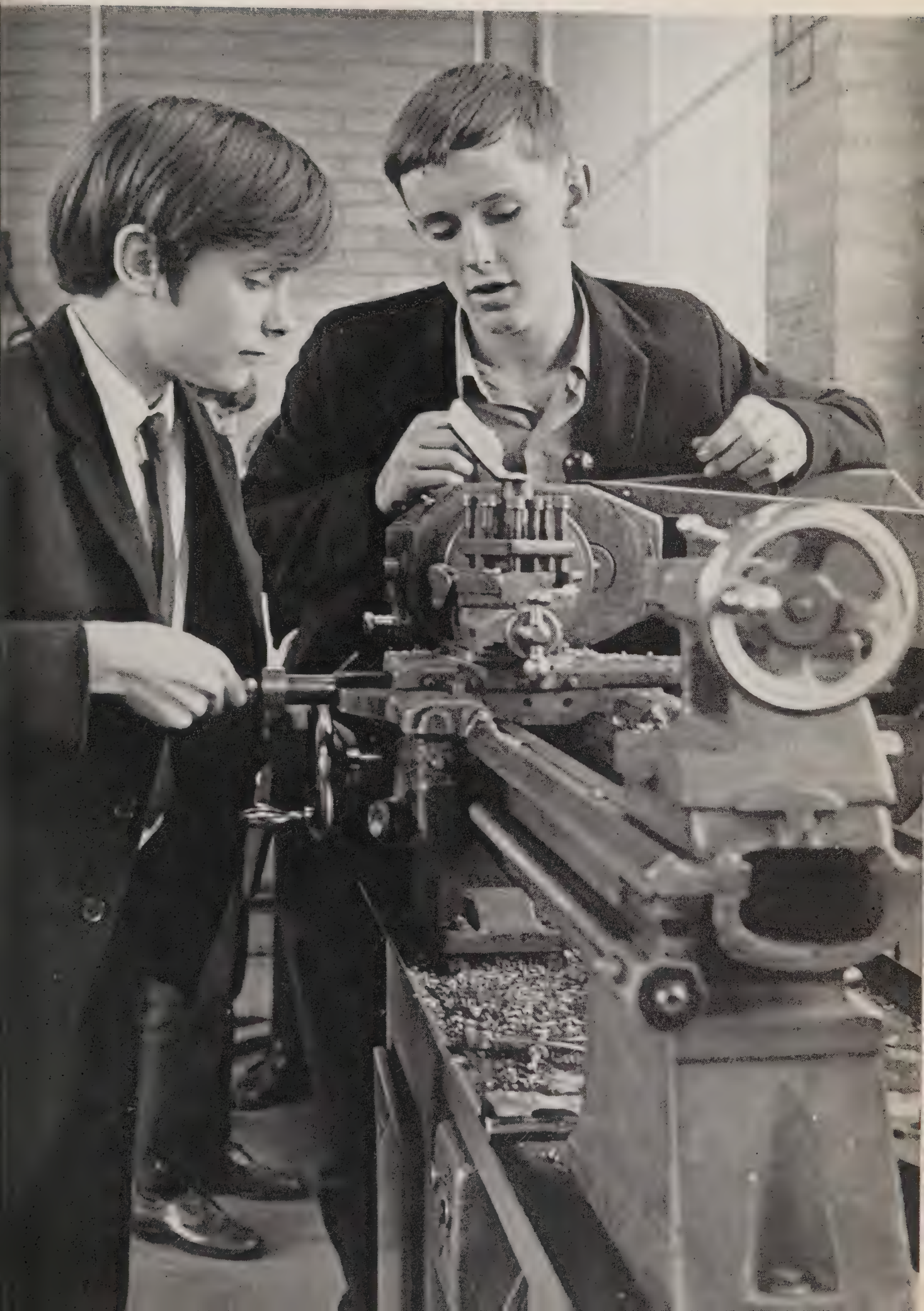
Comprehensive education

provides for the full range of ability and offers courses from the academic to the practical. The range of teachers, facilities and equipment in a comprehensive school can enable every pupil to follow

a course which fits his unique pattern of ability. Over a quarter of the pupils in maintained secondary schools are now in comprehensives. See Part I page 12 and Part II Section I paragraphs 28ff.









were among those which fell notably short of the quota this year. Allowances for schools with a high proportion of immigrants or in educational priority areas were increased from 3,200 to 4,950.

23. Rumours were current during the year that there was likely to be a considerable number of newly-trained teachers unemployed, but in the event very few failed to obtain posts by the beginning of the autumn term. As in the previous year, lists of authorities with vacancies were sent to teacher training establishments, area training organisations and university appointments boards.

Staffing Standards

24. At a meeting held at the Department with representatives of local authority and teacher associations in February there was general support for the Department's view that a new approach to staffing standards in the schools was needed. After further consultations the Secretary of State revoked Regulation 6 of the Schools Regulations 1959 (which laid down maximum class sizes) with effect from 1st September 1969 by the *Schools (Amendment No. 2) Regulations 1969**. Announcing the change in August, circular 16/69 made clear that the revocation of the regulation did not mean any change in the target for national teacher supply. The change was made primarily because the concept of the registered class as the basic teaching unit was becoming increasingly outmoded, because the regulation was ineffective, and because it assumed an undue staffing differential between primary and secondary schools and a rigidity in staffing which was likely to restrict the best use of the teaching resources available.

25. The circular set three guidelines for the future: that authorities should continue as resources permit to bring staffing standards in primary schools closer to those in the lower forms of secondary schools; that every effort should be made to avoid a situation in which children were consistently taught in unduly large groups, to which end there should be an immediate examination of possible remedies in primary schools with classes of 40 and over; and that authorities should continue to supplement their quota by the use of off-quota teachers.

26. Much interest was aroused by the Secretary of State's appeal for efforts to reduce the size of primary classes, and, though no national figures for the school year 1969-70 were yet available, it seemed likely at the end of 1969 that the percentage of such classes with over 40 children on the register, which was 9.5 per cent in January 1969, was already a good deal lower.

Teaching Council

27. July saw the first meeting of a broadly based working party which had been set up by the Secretary of State to formulate proposals for the establishment of a council through which teachers in England and Wales could exercise a measure of self-government, and for national arrangements by which advice could be made available to the Secretary of State on matters relating to the training and supply of teachers. Rapid progress was made and by the end of the year the working party were about to consider a draft report.

* S.I. 1969 No. 1174, H.M.S.O., 4d. [1½p].

d. THE ORGANISATION OF SECONDARY EDUCATION

28. Further progress was made during the year with the reorganisation of secondary education along comprehensive lines. By the end of the year 12 of the 163 L.E.A.s in England and Wales had comprehensive systems either implemented or approved. 108 authorities had schemes implemented or approved covering the whole or greater part of their areas :—

Anglesey	Grimsby	Oxford County
Barking	Haringey	Borough
Barnet	Hartlepool	Oxfordshire
Barnsley	Hastings	Portsmouth
Barrow-in-Furness	Havering	Preston
Bath	Herefordshire	Redbridge
Bedfordshire	Hertfordshire	Rochdale
Berkshire	Hounslow	Rotherham
Birkenhead	Huddersfield	St. Helens
Blackburn	Huntingdon and	Sheffield
Blackpool	Peterborough	Solihull
Bradford	Isles of Scilly	Somerset
Brent	Isle of Wight	Southampton
Bristol	Kent	South Shields
Bromley	Kingston upon Hull	Stoke-on-Trent
Burnley	Leicester	Suffolk, East
Burton-upon-Trent	Leicestershire	Suffolk, West
Caernarvonshire	Lincoln County	Sunderland
Canterbury	Borough	Sussex, East
Cardiff	Lincolnshire	Sussex, West
Cardiganshire	Holland	Tynemouth
Carlisle	Lincolnshire	Wakefield
Chester	Lindsey	Wallasey
Cornwall	Luton	Waltham Forest
Coventry	Manchester	Warwickshire
Croydon	Merioneth	West Bromwich
Cumberland	Merthyr Tydfil	Wigan
Darlington	Merton	Worcestershire
Denbighshire	Monmouthshire	York County
Devon	Montgomeryshire	Borough
Dewsbury	Newcastle upon	Yorkshire, East
Doncaster	Tyne	Ridgeway
Dudley	Newham	Yorkshire, North
Durham	Newport	Ridgeway
Eastbourne	Northampton	Yorkshire, West
Enfield	County Borough	Ridgeway
Essex	Northamptonshire	
Exeter	Northumberland	
Flintshire	Norwich	
Gateshead	Nottinghamshire	
Gloucestershire	Oldham	
Great Yarmouth		

29. A further 21 authorities had schemes implemented or approved for part of their areas :—

Breconshire	Hampshire	Staffordshire
Cambridgeshire	Lincolnshire	Shropshire
Carmarthenshire	Kesteven	Surrey
Cheshire	Liverpool	Swansea
Derbyshire	London (I.L.E.A.)	Teesside
Dorset	Lancashire	Wiltshire
Ealing	Pembrokeshire	
Glamorgan	Radnorshire	

30. Twelve authorities had submitted schemes which were being considered in the Department :—

Bexley	Halifax	Southport
Bootle	Ipswich	Stockport
Brighton	Plymouth	Walsall
Derby	Reading	Warrington

31. Eight authorities had been asked by the Secretary of State to reconsider their submitted schemes. Of the remaining 14 authorities, 6 had not yet submitted any official scheme and 8—Bolton, Bournemouth, Bury, Kingston-upon-Thames, Richmond-upon-Thames, Rutland, Westmorland and Worcester County Borough—had formally declined to do so.

32. The most popular form of organisation continued to be the orthodox all-through comprehensive school taking pupils of 11-18 years of age. Middle school schemes straddling the primary and secondary stages and schemes of 4 and 5 year comprehensive schools with separate sixth form or junior colleges were also well represented. Two schemes were accepted which proposed that all education for the post-16 age groups should be provided under the Further Education Regulations. Two-tier systems were also in evidence and included some of a permanent character, with automatic transfer of pupils, but for the most part they formed interim steps towards ultimate schemes of a more fully comprehensive character.

33. All the schemes covered county schools and in some cases included voluntary schools. Where this was not so, discussions about the future of the voluntary schools were proceeding.

34. In January 94 authorities were operating comprehensive schools. The progress which took place between January 1968 and January 1969 is shown in the table below :—

TABLE 11.—*Comprehensive Schools in the maintained sector*

	January 1964	January 1968	January 1969
Number of maintained secondary schools ...	5,894	5,576	5,453
Number of comprehensive schools (included above).	195 (3.3%)	748 (13.4%)	962 (17.6%)
Number of pupils in maintained secondary schools.	2,829,747	2,895,387	2,959,604
Number of pupils in comprehensive Schools (included above).	199,245 (7.0%)	604,428 (20.9%)	772,612 (26.1%)

e. THE URBAN PROGRAMME AND PROVISION FOR UNDER-FIVES

35. Approval of projects under the first phase of the Government's Urban Programme was announced in January. The educational share of the Programme was devoted entirely to nursery schools and classes in the areas of 23 local education authorities—involving expenditure of £1.35m. which would attract 75 per cent grant aid. For the second phase of the Programme, proposals were invited from all local education authorities in February (circular 2/69); the resulting programme announced in June included a further £2m. of educational projects in the areas of 70 authorities. These included nursery schools and classes, teachers' centres and research and language centres for immigrant pupils.

Nursery Education

36. The first two phases of the Urban Programme included 416 new nursery classes; 95 in new nursery schools, 165 in new classrooms attached to primary schools and 156 in existing classrooms adapted for the purpose. Altogether about 10,600 additional full-time nursery places were programmed, catering for substantially more than this number of children when allowance is made for part-time attendance. This was the first planned expansion of nursery provision since the war and was designed to make an impact in the areas of greatest deprivation.

Playgroups

37. In the private sector there are now at least 5,000 pre-school playgroups registered with local health authorities. Assistance to playgroups by local authorities qualified for grant under the Urban Programme, and the Department renewed and increased its grants to the Pre-School Playgroup Association and the Save the Children Fund in recognition of their advisory work.

f. THE EDUCATION OF IMMIGRANTS

38. The total number of immigrant pupils in maintained primary and secondary schools rose from 220,000 in January 1968 (2.9 per cent of all full-time pupils in these schools) to nearly 250,000 in January 1969 (3.5 per cent).

39. The Department gave oral evidence in February and May to the Select Committee of the House of Commons on Race Relations and Immigration, which was investigating the problems of coloured school leavers. The report of the Select Committee,* published in September, made a number of recommendations about the teaching of English to immigrants and about education in community relations for all pupils and teachers in training. The Government's observations on the educational and other recommendations of the report were to be published in a White Paper early in 1970.

* *Report from the Select Committee on Race Relations and Immigration. The Problems of Coloured School Leavers. Volume I. Report and Proceedings of the Committee.* H.M.S.O. 7s. 6d. [37½p].

40. For the school year 1969-70 the Department approved applications from 53 local education authorities for increases in the teacher quota to meet the needs of immigrant children in schools. Under the second phase of the Urban Programme 4 reception centres and 7 language centres for immigrant pupils were approved. Some authorities also received grants towards the cost of transport, holiday classes and courses specially provided for immigrants.

41. The Department was represented at meetings of the Advisory Committee on Education of the Community Relations Commission, which was established under the Race Relations Act 1968. Meetings were also held with representatives of the Race Relations Board.

2. Schools Not Maintained by Local Education Authorities

a. PUBLIC SCHOOLS COMMISSION

42. The Commission continued its work during the year in relation to independent day schools and direct grant grammar schools.

b. DIRECT GRANT AND INDEPENDENT SCHOOLS

43. In April the Direct Grant Schools Joint Committee approached the Department for an increase in the capitation grant to offset part of the effect of teachers' salary and other pay and price increases. After careful consideration of the Committee's representations the Secretary of State decided to make no change in the rate of grant.

Standards in Independent Schools

44. The 1968 report* referred to measures to implement the Secretary of State's decision to apply the standards for recognition as efficient to registered boarding schools. The position at the end of the year was as follows:—

Number of Schools

Visited	146
Recognised as efficient	19
Advised on measures needed to attain recognition standards	64
Still under consideration	57
Closed voluntarily after visit	4
Ceased to take boarders after visit	2
Still to be visited	72

Recognised Efficient Schools

45. Thirteen additional schools were recognised as efficient under Rule 16 during the year ; 5 schools had recognition withdrawn from them ; and 22 closed or amalgamated with other schools. In all 1,432 schools were recognised at the end of the year.

Registration of Independent Schools

46. At the end of 1969 the register of independent schools contained 1,355 finally registered schools besides those recognised as efficient and 50 provisionally registered schools of which 29 were new schools which had come into existence since January. During the year 33 new schools were added to the register and the particulars of 173 were removed on closure or change in status.

Notices of Complaints and Appeals

47. During 1969 the Secretary of State served 14 notices of complaint making a total of 181 since the introduction of Part III of the Education Act 1944 in 1957. The complaints related to deficiencies in premises, accommodation and instruction (6 schools) ; deficiencies in premises and instruction (1 school) ; deficiencies in premises (2 schools) and unsuitable teachers (1 school).

* *Education and Science in 1968*, Section I, paragraph 50.

48. Two of the notices of complaint issued in 1969 were referred to Independent Schools Tribunals. In one case which concerned an unsuitable teacher, the tribunal met in June and disqualified the teacher from being a teacher in any school. In the other case concerned with deficiencies in premises, accommodation and instruction, the hearing had not taken place by the end of the year.

49. The 1968 report* referred to two appeals that were outstanding at the end of the year. In one case the hearing had been deferred pending consideration under the Nurseries and Child-Minders Regulation Act 1948. The proprietor did not proceed with this application and the appeal to the Independent Schools Tribunal was heard in May but adjourned until October to allow the proprietor time to carry out certain improvements. All the requirements were met to the Secretary of State's satisfaction, subject to a limit on the number of pupils using the premises at any one time, and the tribunal made an Order to this effect. In the other case the resumed tribunal hearing took place in July and an Order was made that the school be struck off the register of independent schools unless by 31st July 1970 it ceased to have pupils over the age of eleven.

50. The proprietor of the school referred to in the 1968 report† as being still open although struck off the register was prosecuted and fined again. At the end of the year further legal proceedings were under consideration. Prosecution of the proprietor of another school for a similar offence was initiated towards the end of the year.

51. The proprietor of one school was prosecuted and fined for refusing to allow the inspection of the school.

52. During 1969 the Secretary of State dealt with 14 schools where the time limit had expired for satisfying the requirements of a notice of complaint against which there had been no appeal. The results were as follows:—

<i>Grounds of Complaint</i>	<i>Action taken by School</i>	<i>Action taken by Secretary of State</i>
Inefficient or unsuitable instruction combined with deficiencies in premises and accommodation (10 schools)	Requirement met (two schools)	Order striking school off register and disqualifying premises (one school)
	Closed voluntarily (one school)	Order striking school off register if requirements not carried out (one school)
		Orders striking schools off register if requirements not carried out and disqualifying premises (two schools)
		Extension of time limit to carry out requirements (one school)
		Action under consideration at end of year (two schools)

* *Education and Science in 1968*, Section I, paragraphs 54 and 55.

† *Education and Science in 1968*, Section I, paragraph 58.

<i>Grounds of Complaint</i>	<i>Action taken by School</i>	<i>Action taken by Secretary of State</i>
Inefficient or unsuitable instruction combined with deficiencies in premises (two schools)		Action under consideration at end of year (two schools)
Inefficient or unsuitable instruction combined with deficiencies in accommodation (one school)		Action under consideration at end of year
Inefficient or unsuitable instruction combined with deficiencies in premises and accommodation and an unsuitable proprietor (one school)		Orders disqualifying premises and disqualifying proprietor from being the proprietor of an independent school

53. In the 5 cases involving unsuitable teachers that were the subject of complaint during 1969, four of the schools concerned met the requirements within the specified time. Action against one school which failed to do so was under consideration at the end of the year. All 5 persons were disqualified from being teachers in any school, 4 by order of the Secretary of State and 1 by order of an Independent Schools Tribunal as mentioned in paragraph 48 above.

3. The Schools Council for Curriculum and Examinations

54. On 1st October Dame Muriel Stewart, D.B.E., was appointed by the Secretary of State as Chairman of the Schools Council in succession to Mr. Alan Bullock, Vice-Chancellor of the University of Oxford.

55. The Department has met all the overhead expenses of the Council since it was established in 1964. In addition, the Department has annually made available to the Council up to £100,000 of its research funds. Since 1967-68, the local education authorities have contributed annually (£600,000 in 1969) towards the cost of the Council's research and development programme. From 1st April 1970 the basis of the Council's finances will change. It will receive, as an independent charity, grants of equal amounts from the Department and the L.E.A.s. The amounts approved for the financial year 1970-71 are £625,000 from each source.

56. During 1969 the Council initiated further curricular research and development projects in many fields: a full list will be found in its Annual Report. As a matter of general policy, however, it decided to concentrate on the established projects where these had already shown promise of good value. Extensions of such projects included an in-service training element in order to introduce the new materials and methods to those working in the field of in-service training. (The Council provides no training itself nor does it act as a co-ordinating body for this purpose.)

57. The Council has continued to urge the setting up of local curriculum development centres. During 1969 the Council organised three national conferences on the theme "Local Curriculum Development in Teachers' Centres". The conferences brought together those concerned with teachers' centres in England and Wales to exchange experience, explore different approaches to some of the key issues, identify those factors which promote or hinder local curriculum development, and to help the Council itself to an understanding of the most effective ways in which it can give greater support to those engaged in this work. The first conference was held at St. John's College of Education, York, in January and was attended by 147 members nominated by L.E.A.s, universities and other bodies. Ninety-two members attended the second conference held at Southlands College of Education, London, in April and 119 were present at the third conference (also held in April) at the City of Cardiff College of Education.

58. The number of candidates entered for C.S.E. examinations showed a further substantial rise in 1969. Compared with 1968 when some 208,000 candidates entered, the number rose to 235,000. Following the wide acceptance of Grade I as a qualification equivalent to G.C.E. O-level, employers and other users of C.S.E. are now showing an increasing interest in the grades below Grade I and an awareness of the standards they represent. During the year, the Committees of the Council began to consider the problems for schools and certificate users of the existence of two overlapping examinations at 16+, viz., C.S.E. and G.C.E. O-level, and possible solutions to them. The issues are coupled with pressure for the abolition of the pass/fail concept of G.C.E. O-level and the introduction of official grades on certificates on the one hand, and, on the other, for the early introduction of a single examination system at this level. To assist

the Council in its deliberations, and to discover more about the characteristics of the two examinations, two programmes of research have been approved into the reliability and validity of both examinations and into the values attached to the various grades.

59. A Working Party is also reviewing as a matter of urgency the present grading system of G.C.E. A-level of which there has been growing criticism. It hopes to be in a position to make recommendations for a revised system of grading early in 1970. A survey by the Council's research staff has revealed a wide range of research by the G.C.E. examining boards into many aspects of examining as well as the investigation of new techniques. The Council is concerned that this activity by the examining boards is not more widely known and it is taking steps to encourage publicity.

60. On 9th December a joint statement was issued by the Standing Conference on University Entrance and the Schools Council Joint Working Party on Sixth Form Curriculum and Examinations and the Schools Council's Second Working Party on the Sixth Form Curriculum and Examinations setting out their proposals for the curriculum and examinations in the sixth form. Their recommendations, which included the introduction by 1975 and 1976 of Qualifying and Further Examinations, two new single-subject graded examinations, aimed to provide a broader and more balanced curriculum.

61. Three issues of *Dialogue*, the Council's termly newsletter were published, issues Nos. 2 and 4 containing some full-colour pages. The newsletter is available free to schools, teachers' centres and L.E.A. committee members. Colleges of education, colleges of further education, institutes and departments of education and certain other bodies also receive copies. A limited number of copies are also made available on a subscription basis. The British Council has placed the newsletter in a number of its reading rooms overseas, and the Government of Northern Ireland has purchased copies for distribution to its schools. A special full colour 16-page supplement is in preparation to mark the hundredth anniversary of the 1877 Education Act.

62. Four wallsheets on the work of the Council were produced and distributed to teachers' centres and L.E.A.s. A leaflet describing the work of the Council with an inset list of publications was also distributed. An exhibition on the work of the Council was prepared and shown in a number of teachers' centres and colleges of education. Preparations began for an exhibition on the C.S.E. Mode III Examinations in autumn 1970; for a bilingual exhibition at the National Eisteddfod; and for special exhibitions at Council and member-interest conferences.

4. Handicapped Pupils, Special Educational Treatment, and Special Schools

Advisory Committee on Handicapped Children

63. The Secretary of State appointed Professor Jack Tizard, Professor of Child Development at the Institute of Education, London University, as chairman of the Committee in succession to Dr. Stanley Evans.

Building Progress

64. During 1969 64 special school and school clinic major building projects were started at a total of £6.2m., and projects valued at £4.5m. were completed. At the end of the year 71 projects valued at £7.2m. were under construction. Schools for the educationally subnormal accounted for a high proportion of all these projects.

65. Circular 17/69, issued in September, announced that the three stage procedure for major building programmes, already introduced for schools and further education projects* would be applied to the special schools and school clinics major building programmes; the first starts programme under the new arrangements would be for 1971-72. Authorities were asked to submit details of projects included in announced programmes which had not started by 31st March 1969 and to indicate when they were likely to be ready to start.

Blind and Partially Sighted Pupils

66. During the year arrangements were completed for the establishment at the University of Birmingham of a research centre for the education of the blind. The centre was due to start in January 1970 and amongst its aims will be research into the learning problems and processes of blind children, the in-service training of teachers and the encouragement and control of experiments in schools for the blind. Through the co-operation of the Royal National Institute for the Blind, the Birmingham Royal Institute for the Blind and St. Dunstan's, the National Mobility Centre was established in Birmingham. This centre offers courses for teachers in schools for the blind and other instructors of blind persons who give systematic training in orientation and mobility, including the "long cane" technique.

67. Over the year there was increasing support for the periodic weekend courses organised by the Department for teachers of the blind.

68. There was also growing development in parent guidance. Residential visits were made for this purpose by parents to St. Vincent's School for the Blind and Partially Sighted, Liverpool, and to the unit for deaf-blind children at Condover Hall School, Shrewsbury. In addition an experiment was launched at Lickey Grange School, Bromsgrove, where an additional teacher was appointed to visit the homes of all blind children in the surrounding area as soon as they are ascertained as requiring special educational treatment.

69. The Committee of Enquiry into the Education of Visually Handicapped Children met regularly throughout the year.

* See *Education and Science in 1968*, Section VI, paragraph 42.

Deaf and Partially Hearing Pupils

70. During 1967–68 the specialist members of H.M. Inspectorate and Medical Officers of the Department carried out an investigation into the work of those teachers of the deaf whose duties include assessing the needs of children with impaired hearing, offering guidance to the parents of very young children and visiting those children who are placed in ordinary classes at school and may be in need of extra help. Their report was published in November as No. 6 in the Education Survey series of pamphlets under the title *Peripatetic Teachers of the Deaf*;* it is complementary to the first survey in this series which dealt with *Units for Partially Hearing Children*.† These two surveys have highlighted the increasing demands which the development of these services for hearing impaired children are creating for specially qualified teachers and which the expansion of training facilities described in the 1968 report‡ is intended to meet.

71. This expansion has in turn thrown up a further problem, that of providing, for the increased number of teachers in training, opportunities for teaching practice at the limited number of special schools for the deaf and partially hearing children. During the year a one-day conference was held, attended by nearly all the headteachers of these schools, who discussed ways of accommodating more students on teaching practice and giving the experienced teachers in the schools a more active, tutorial role in the training of specialist teachers, along the lines successfully adopted in ordinary schools to deal with the expansion of the initial teacher training programmes.

Physically Handicapped Pupils

72. In May the Department issued circular 11/69 about the implications for the education services of the great increase, as a result of improved surgical techniques, in the number of *spina bifida* children surviving. L.E.A.s were asked to assess the situation in their area and to review their existing school provision to see what additional special arrangements would be needed to provide education for these children. Authorities had already been asked to consider particularly the needs of children handicapped by *spina bifida* in putting forward proposals for the special school building programme. An appendix to the circular outlined the special needs at schools of these children and it was felt that this might prove valuable to all concerned including headteachers.

73. In March work was started on the College of Further Education for the Physically Handicapped at Coventry. The college, which will provide 100 residential places on a national basis, is expected to open in 1971.

74. The Department has considerable information about physically handicapped children in special schools, but little about those in ordinary schools. It was therefore decided to carry out a survey in 1970 to show the number of physically handicapped children in ordinary schools and the degree of severity of their handicap.

* H.M.S.O., 4s. [20p].

† H.M.S.O., 5s. [25p].

‡ *Education and Science in 1968*, Section I, paragraph 76.

Severely Subnormal Children

75. Following the Prime Minister's announcement in November 1968 of the Government's acceptance in principle that responsibility for the education of all mentally handicapped children in England and Wales should be transferred to the education service (recorded in the 1968 report*) a consultation document concerned largely with questions of staffing and training was sent to the local authority associations, professional and other bodies and their comments were considered. The Prime Minister said on 18th November that legislation giving effect to this change would be introduced in the current session.

76. In November the Secretary of State announced his intention that, when the transfer occurred, staff concerned who held the Diploma in the teaching of mentally handicapped children of the Training Council for Teachers of the Mentally Handicapped would receive the salaries and conditions of fully qualified teachers in the education service if or as soon as they had completed five years satisfactory post-diploma service. This would apply also to students gaining the Diploma from existing courses. Plans were agreed in principle for a new category of unqualified teacher to be introduced to enable staff not becoming (or not yet becoming) qualified teachers as above to continue in service with pay and conditions no less favourable than before the transfer. Institutes of education were asked to consider, in conjunction with those responsible for the diploma courses of the Training Council, how special three-year courses could best be developed within the normal three-year teacher training course for future students who would want to teach mentally handicapped children.

Training of Teachers in Special Education

77. The proposed transfer of responsibility for the education of mentally handicapped children and the future training of their teachers have led to reconsideration of the needs of other teachers in training who will subsequently be called upon to teach children who experience learning or development problems. A conference to consider the question was organised by H.M. Inspectors and was attended by 86 representatives from colleges of education and 12 from university institutes of education.

Children with Speech Defects

78. In July a Committee of Enquiry into the Speech Therapy Services was established jointly by the Secretaries of State for Education and Science, for the Social Services, for Scotland and for Wales, with the following terms of reference :—

“To consider the need for and the role of speech therapy in the field of education and of medicine, the assessment and treatment of those suffering from speech and language disorders and the training appropriate for those specially concerned in this work and to make recommendations”.

The Chairman of the Committee is Professor Randolph Quirk of University College, London and the 17 members, all of whom serve in their capacities as individuals and not as representatives of any organisation or interest, are drawn in roughly equal proportions from the worlds of speech therapy, education and medicine.

* *Education and Science in 1968*, Section I, paragraph 80.

5. General

a. LICENCES FOR CHILDREN IN ENTERTAINMENT

79. No licences were issued under Section 22 of the Children and Young Persons Act 1933 in the period to 3rd March 1969 when the Home Office assumed responsibility under Part II of the Children and Young Persons Act 1963.*

b. PSYCHOLOGISTS IN EDUCATION SERVICES

80. The Department completed consideration of the comments of the local authority associations and the professional and other bodies consulted on the report of the Working Party under the chairmanship of Professor Summerfield.† In a statement in November the Secretary of State paid tribute to Professor Summerfield and his colleagues for the report, indicating that the number of students on postgraduate courses of training in educational psychology was in advance of the assumptions in the report and that this would go far to meet the immediate recommendations for expansion. The Secretary of State was considering what action he could take to facilitate the secondment of staff to the university departments concerned in order to provide a further measure of expansion. The Secretary of State was sure that the local education authorities, as employers, and the establishments responsible for providing courses were carefully considering the proposal in the report for two-year postgraduate courses following directly on graduation as an alternative to the existing one-year courses for psychology graduates with teaching experience. The latter qualification seemed likely to be the main one for some time to come, but there might well be scope for experimental two-year “end-on” courses as well. If initiatives were made he would be willing to see what could be done within the resources available from the point of view of student support.

c. SCHOOL MEALS

81. Reference was made in the 1968 report‡ to the withdrawal in April 1969 of meals without charge to children in excess of three in any one family, irrespective of parental income. Effect was given to this decision in new Regulations§ consolidating the existing regulations with minor amendments. The charge for school meals—which remained unchanged—continued to be remitted to parents who would otherwise incur financial hardship and the remission arrangements were incorporated in the new regulations. Improved supplementary benefit scales came into operation on 3rd November. New income scales for the remission of the school meal charge, on grounds of financial hardship, were given effect in amending Regulations|| from the same date to take account of these improved benefit scales.

* See *Education and Science in 1968*, Section I, paragraph 89.

† *Psychologists in Education Services*, H.M.S.O., £2 5s. [£2·25]—see also *Education and Science in 1968*, Section I, paragraph 92.

‡ *Education and Science in 1968*, Section I, paragraph 94.

§ *The Provision of Milk and Meals Regulations 1969*, S.I. 1969, No. 483, H.M.S.O., 1s. 0d. [5p].

|| *The Provision of Milk and Meals (Amendment) Regulations 1969*, S.I. 1969, No. 1099, H.M.S.O., 6d. [2½p].

82. Figures showing the uptake of school meals and the extent to which the charge is remitted in September 1969 compared with September 1967 and 1968 are tabulated below.

TABLE 12.—*School meals served to pupils in maintained schools in England and Wales*

Date	Number of Meals served (000)			Percentage of pupils present taking meals	Percentage of meals served free
	On payment	Free	Total		
September 1967 ...	4,443	404	4,847	69·5	8·3
September 1968 ...	4,179	841	5,020	70·1	16·8
September 1969 ...	4,575	594	5,169	70·1	11·5

83. The returns for 1968 are exceptional, since they include those children, estimated to exceed 250,000 in number, who received meals free as members of large families and not because their parents would suffer financial hardship if they paid the charge. The comparison between figures on the same basis is between the returns for 1967 and 1969. The success of the publicity campaigns of the winter of 1967–68 fully described in an earlier report* is shown by the sharp increase in number and proportion of children taking free meals. The overall uptake of meals expressed as a percentage of children present remained constant, in spite of the increased charge introduced in April 1968.

84. In November the Secretary of State announced the Government's decision to increase the school meals charge from 1s. 6d. to 1s. 9d. with effect from the beginning of the summer term, 1970. This change was made to allow for increased costs, and would retain the subsidy on each meal at 1s. 1d.

85. Increasing interest was shown by local education authorities faced with rising costs and staffing problems during the year in the possible use of frozen foods. With the aid of a grant from the Department the Procter Food and Leather Science Department of Leeds University, which had already carried out a pilot project with pre-cooked deep frozen meals at a hospital in Leeds, undertook a similar scheme for schools in co-operation with the Leeds local education authority. Starting in 1970, mid-day meals with pre-cooked deep frozen foods will be supplied to a number of schools in Leeds which are at present receiving transported meals. The research team includes, besides those directly concerned with dietetics and nutritional values, a social worker and a cost accountant.

86. A number of other authorities also introduced their own pilot schemes. There is, at present, insufficient evidence to show whether it will be possible to combine significant financial economies with the provision of meals of acceptable standards, or whether sufficient suitably qualified staff to manage and control a domestic system of this kind will be available. Local authorities were asked to inform the Working Party on School Meals

* *Education and Science in 1967*, Section I, paragraph 105.

of any pilot schemes undertaken, and to keep them in touch with progress. At the same time arrangements have been made to keep Chief Education Officers informed of any significant developments through the Working Party.

d. MILK IN SCHOOLS SCHEME

87. The following table shows the number of children taking free milk on a day in the autumn term:

TABLE 13.—*Children for whom L.E.A.s provided free milk on a day in the autumn term*

	1968		1969	
	Number (000)	Percentage of those present	Number (000)	Percentage of those present
Maintained schools(i) ...	4,055	92·0	4,174	91·9
Non-maintained schools(ii)	126	76·4	91	73·9
Total	4,181	91·4	4,265	91·4

Notes:

(i) Primary schools and maintained special schools.

(ii) Local education authorities are empowered to provide free milk to pupils at non-maintained special schools, and to junior pupils at other non-maintained schools but they are not obliged to do so.

SECTION II

FURTHER EDUCATION (ENGLAND AND WALES)

Introduction

1. This section of the report deals with developments in the provision of education and recreation for those over school age (other than in the universities which are dealt with in the next section). It contains sub-sections on technical education ; teacher training in the colleges and departments of education ; and adult education, the youth service, and sport.

1. Technical Education

a. MAJOR DEVELOPMENTS

The Polytechnics

2. The White Paper *A Plan for Polytechnics and Other Colleges* of May 1966* announced the Government's intention to designate as polytechnics a limited number of major centres of higher education to be developed as comprehensive academic communities catering for full-time, sandwich and part-time students. In April 1967 the Secretary of State informed Parliament of his proposals for the establishment of 30 polytechnics in England and Wales and, except in the case of the polytechnic proposed for north Lancashire, the L.E.A.s concerned were invited to submit schemes for the establishment of polytechnics in their areas. By the end of 1969 all but one of these schemes had been submitted and finally approved.

3. Progress towards the making of polytechnic instruments and articles of government, and the establishment of the new institutions, had been slowed down in the early part of the year while the L.E.A.s concerned reviewed their proposed arrangements for the participation of staff and students in the government and conduct of their college and for procedures in matters of student discipline. These matters were considered in the light of a joint statement issued in November 1968 by the local authority associations and the National Union of Students on the government and administration of colleges and a memorandum of guidance on the government of polytechnics, colleges of education and other colleges of comparable status published by the associations in March 1969.

4. The first three polytechnics—those at Hatfield, Sheffield and Sunderland—were established and designated by the Secretary of State in January ; the City of Leicester Polytechnic came into being in April and another four polytechnics, at Bristol, Newcastle upon Tyne, Portsmouth and Wolverhampton in September. The Secretary of State decided to present to each polytechnic a document, bearing his signature and seal, commemorating his

* Cmnd. 3006, H.M.S.O., 1s. 6d. [7½p].

designation of the new institution. Six presentation ceremonies, attended by the Secretary of State or by a Minister of State, were held locally ; the other two were due to take place early in 1970.

5. Nearly all the remaining polytechnics proposed seemed likely to be established and designated during 1970, six of them in January—at Kingston, Lanchester, Leeds, Manchester, North Staffordshire and Plymouth. By the end of the year directors had been appointed for seven polytechnics in addition to those for the eight existing polytechnics and the six due to be established in January.

The Haslegrave Report

6. The Committee on Technician Courses and Examinations under the chairmanship of Dr. H. L. Haslegrave submitted its report to the National Advisory Council for Education in Industry and Commerce in July and was published on 16th December* with administrative memorandum 21/68. The report recommended that the Secretary of State should set up a Technician Education Council (T.E.C.) and a Business Education Council (B.E.C.) to plan, co-ordinate and administer national technician and comparable examinations and qualifications in the technical and business sectors respectively. It also recommended that the City and Guilds of London Institute be invited to undertake the administrative work of both Councils assisted as necessary by new regional examining organisations formed from the existing regional examining bodies federated or otherwise associated with the Institute. (One member dissented from this view in respect of the B.E.C.)

7. The report also called for the phased introduction in the technical sector of a unified pattern of courses which would ultimately replace the present City and Guilds and national certificate and diploma pattern. It suggested that the T.E.C. should first introduce the new pattern in the engineering sector and extend it gradually to other subject areas in the technical field. It also recommended that the proposed B.E.C. should develop a unified national pattern of courses in business and office studies at levels below first degree.

8. In the accompanying administrative memorandum the Secretary of State announced that he would be taking steps to obtain the views of those bodies to whom the report's recommendations were of direct concern and that he would take the further advice of the National Advisory Council in the light of the views submitted to him.

Accreditation Scheme for Correspondence Colleges

9. In July the Secretary of State appointed Mr. Robert E. Presswood, who had recently retired from the post of Director of Education at Cardiff, to be the first chairman of the Council for the Accreditation of Correspondence Colleges†. The other members of the Council appointed by the Secretary of State were Mr. R. G. Bellamy, Chief Executive of the Electricity Supply Industrial Training Board ; Mr. K. S. Carter, Educational Officer of N.A.L.G.O. ; Mr. Lyndon H. Jones, Principal of the South West

* H.M.S.O., 12s. 6d. [62½p].

† See *Education and Science in 1968*, Section II, paragraph 5.

London College ; Mr. C. L. Mellowes, Director of Education of Northumberland, and Mr. J. F. Phillips, Secretary of the Chartered Institute of Secretaries. The members of the Council appointed to represent correspondence college interests were Mr. E. W. Cook, Mr. H. R. Light and Colonel H. T. Rooke (nominated by the Association of British Correspondence Colleges Ltd.), Mr. B. Mendes (nominated by Cleaver-Hume Ltd.) and Mr. B. Passingham, a Governor of the College of Law—appointed as a person from a correspondence college other than a member of the Association of British Correspondence Colleges or Cleaver-Hume. In addition, the Secretary of State and the Secretary of State for Scotland each nominated a member of H.M. Inspectorate to act as an assessor to the Council. The Council held its first meeting on 23rd October.

b. INDUSTRIAL TRAINING ACT 1964

Industrial Training Boards

10. During the year industrial training boards were set up for the clothing and hairdressing industries. The numbers of employer, employee and education members of these boards are :

	<i>Employer</i>	<i>Employee</i>	<i>Education</i>
Clothing and Allied Products ...	8	8	5
Hairdressing and Allied Services ...	5	5	4

This brought the number of boards established to 28, with a total of about 15m. employees within their scope.

Education Members of Industrial Training Boards

11. In December the Department arranged a conference for education members of industrial training boards. The object was to enable members to discuss together the main educational and other considerations to be borne in mind in making their contribution to the work of the industrial training boards ; and generally to exchange views and draw on each other's experience as an aid to ensuring that their contribution was the most effective possible. The conference decided to produce a detailed memorandum to serve as a general guide to the education member, and as a source of reference on the chief considerations that he might wish to bear in mind in formulating his advice to his board colleagues and officers.

Joint Planning of Training and Further Education

12. The establishment of new courses of further education for engineering craft trainees was announced in administrative memorandum 2/69 issued on 20th January. The courses were proposed by joint advisory committees of the City and Guilds of London Institute and the 6 regional examining bodies who published simultaneously full details of the new syllabuses and the appropriate arrangements for examinations. The courses were introduced generally in the colleges in September (see paragraph 38). Known as "craft studies" courses, they were designed for students undergoing planned training programmes of the kind recommended by the relevant industrial training boards, and it was expected that they would ultimately replace the "craft practice" type of courses as more and more students came to receive

training of this kind. The administrative memorandum offered interim advice to L.E.A.s and colleges on the gradual phasing out of craft practical courses and on arrangements that might be made to meet the further education needs of engineering craft students who were not yet receiving systematic training of the kind recommended by the boards.

13. The Engineering Industry Training Board published in September definitive recommendations for the training of technician engineers employed in the industry. While it was clear that the recommendations would entail a thorough review of the provision of further education courses for technician engineers, it was considered that any such review must be deferred pending full consideration of the report of the National Advisory Council's Committee on Technician Courses and Examinations (see paragraph 6). The Department therefore issued guidance to L.E.A.s and colleges on interim arrangements that might be made to augment existing technician courses in engineering in order to make them complement more closely the training recommendations of the Board.

14. Following the publication by the Construction Industry Training Board of its *Plan for Operative Training in the Construction Industry** a number of joint advisory committees were set up under the arrangements announced in October 1967† to consider the further education to be associated with the training programmes recommended for seven principal sectors of construction operative activity. The Board's plan, which was expected to take three or four years to implement fully, envisaged a considerable change from the traditional pattern of training for operatives in the industry and it was anticipated that it would give rise to the need substantially to alter the pattern of further education courses to be associated with the training. The Department announced this development to L.E.A.s and colleges in July.

15. Joint advisory committees on a similar pattern were set up to consider the further education to be associated with the Cotton and Allied Textile Industry Training Board's proposals for the training of technicians; the Furniture and Timber Board's proposals for craftsmen; the Hotel and Catering Board's proposals for trainees in occupations concerned with food service; the Iron and Steel Board's proposals for certain categories of operatives; and the Road Transport Board's proposals for motor vehicle mechanics.

The Central Training Council

16. In January the Council's Committee on Management Training and Development published its second report *Training and Development of Managers—Further Proposals*‡ which considered schemes of management training and development in greater detail than the Committee's earlier report. The report discussed systematic schemes for the selection, training and development of managers and emphasised strongly the need for close liaison between industry and colleges. Appendix 2 of the report dealt in detail with liaison arrangements between firms and outside agencies providing

* Free from the Construction Industry Training Board, Radnor House, London Road, Norbury, S.W.16.

† See *Education and Science in 1967*, Section II, paragraph 15.

‡ H.M.S.O., 6s. 0d. [30p].

courses and Appendix 3 drew attention to the diploma in management studies. The Department circulated the report to regional advisory councils, L.E.A.s and major establishments of further education.

17. In the early part of the year the Council considered how best to promote the growth of day release for young workers in the 15-17 age group. Although the proportion of both boys and girls being released had risen a little each year since the Industrial Training Act came into force, there was general concern that the growth rate had been so slow. The Council expressed particular concern that large numbers of young workers in jobs requiring substantial training were not getting release to attend courses of associated further education. In March the Council asked the Department of Employment and Productivity to write on its behalf to all industrial training boards asking them to take direct action to promote the grant of day release for young workers in their respective industries whose jobs entailed training lasting a year or more. The letter outlined a number of steps which the boards might consider taking in this respect and stated that the Council would be calling for a progress report in about a year's time. The Department circulated a copy of the D.E.P. letter to all L.E.A.s and colleges inviting them to co-operate fully with industry in providing any extra day release places required as a consequence of action taken by the boards following the Council's request.

Training of Training Officers

18. The number of centres providing introductory courses for training officers remained at 30, although the number of courses provided increased from 91 in the previous year to 102 and the number of trainees completing courses rose from 1,249 to 1,540. Co-operation between colleges and industrial training boards led to introductory courses which catered specifically for the requirements of certain industries and other fields of employment: for example distribution, construction, iron and steel, cotton and allied textiles, road transport, hotel and catering, local government. Several colleges were also developing more advanced courses for training officers.

Industrial Training in Technical Colleges

19. A number of industrial training boards continued to look to the technical colleges for assistance with training as distinct from further education, and by the end of the 1968-69 session some 242 colleges were providing full-time integrated courses of combined education and training for trainees from industry. In all a total of some 11,000 students pursued integrated courses during the year and the use of integrated courses extended into areas such as road transport and the hotel and catering industries.

C. GENERAL

20. A total (provisional) of 1,735,900 students was attending establishments of further education (other than evening institutes—see paragraph 85) in the autumn term. Of these 226,500 were full-time, 33,900 sandwich, 750,200 part-time day and 725,300 evening only.

21. The 1969 figures for students taking advanced courses are not yet available but in 1968 they totalled 188,000 compared with 181,000 in 1967. The figure for full-time and sandwich students was 76,000 against 66,000 the year before ; this included 26,000 on degree courses and 16,000 on high national diploma courses compared with 22,000 and 14,000 respectively.

22. The full-time teaching force continued to expand and the number full-time teachers serving in technical colleges, colleges of art and farm institutes in March 1969 was 48,000 (provisional), an increase of 3,000 over the previous year's figure.

23. L.E.A.s were notified in April of major building projects on which design work could proceed in the expectation that building work would begin in 1970-71. In July authorities confirmed which of these projects were still capable of being started in that year and at the same time indicated the projects they wished to be promoted to the next design list or included in the revised preliminary list. Details of the starts programme and design list for 1970-71 were announced in November. The progress of building work since the White Paper of 1956* is given in Table 14.

TABLE 14.—*Progress of building work since 1956*

Value of projects started £m.			Value of projects completed £m.			Value of projects under construction at 31.12.69 £m.
1.4.56 to 31.12.68	1.1.69 to 31.12.69	1.4.56 to 31.12.69	1.4.56 to 31.12.68	1.1.69 to 31.12.69	1.4.56 to 31.12.69	
193·2	25·1	218·3	159·7	24·9	184·6	51·0

The National Advisory Council on Education for Industry and Commerce

24. The Council met twice during the year and among items discussed were management education and education for agriculture. They also considered the report of the Committee on Technician Courses and Examinations (see paragraph 6).

The Council for National Academic Awards

25. The expansion of the Council's work continued. At the beginning of the 1969-70 academic year 271 C.N.A.A. degree courses were being run compared with 225 a year earlier. A total of 20,116 students were enrolled for these courses compared with 15,656 in 1968-69.

26. Of the undergraduate courses 162 were sandwich in structure, 10 were full-time and 9 part-time ; 6 of the postgraduate courses were part-time and 7 full-time, while 3 could be followed on either a full-time or part-time basis. One or more C.N.A.A. courses were offered by 47 colleges including

* *Technical Education*, Cmd. 9703, H.M.S.O., 4s. 0d. [20p].

3 Scottish colleges and 4 service establishments. 639 students were registered for research degrees (M.Phil. or Ph.D.) compared with 430 in 1968-69.

Further Education Staff College

27. Mr. H. C. I. Rogers, M.I.Mech.E., was appointed Chairman of the Governors of the Staff College in succession to the late Lord Fleck.

Computer Education

28. The year saw consolidation of and further progress in developments outlined in previous reports. The Council for National Academic Awards computer science degree course, now well established, attracted a high calibre of entrant from schools. In the 3 years 1966-67 to 1968-69 the number of students more than doubled from 316 to 744 of which 223 and 300 students respectively were in their first year. Enrolments for the 1969-70 session totalled 964. The 1969-70 session also saw the start of a C.N.A.A. degree course in computer systems engineering at Rugby College of Engineering Technology with an enrolment of 20 students and one in statistics and computing at Northern Polytechnic with an enrolment of 66 students. Progress was maintained with courses for systems analysts and the number of students who have taken the examination administered by the National Computing Centre and the British Computer Society since its inception in 1967 passed the 1,000 mark. At the lower levels there was a large development of appreciation courses for qualifications such as the City and Guilds of London Institute certificate in data processing for computer users and the Royal Society of Arts examination in digital computer appreciation. On the other hand, courses depending largely on day release by employers, e.g. for the City and Guilds of London Institute certificate in computer programming and information processing and Royal Society of Arts operators certificate, were not so well supported.

29. A major new development during the year was the introduction of a higher national diploma and the forward announcement of provision for a higher national certificate in computer studies. Guide syllabuses for the higher national diploma were published and this new course was launched in September in 11 colleges with encouraging enrolments totalling 262 students. Guide notes for the higher national certificate in computer studies for courses to start in 1970 were under consideration towards the end of the year.

30. In July the Department circulated to colleges and L.E.A.s a report on *The Training of Systems Analysts (Commercial)** prepared by a joint committee representing a number of industrial training boards. In a covering circular letter the Department drew attention to the possibility that colleges with the necessary resources might be asked by employers to provide the off-the-job elements of the overall training programme recommended and identified a number of points which colleges were asked to bear in mind. In particular, attention was drawn to the fact that the level of staffing and other resources needed for certain of the off-the-job stages would probably

* H.M.S.O., 5s. 0d. [25p].

be similar to those needed for the existing systems analyst courses run by a number of colleges in conjunction with the British Computer Society and the National Computing Centre, and that in most respects these courses would be likely to satisfy these stages of the training recommendations.

31. The United Kingdom Co-ordinating Committee for Examinations in Computer Studies which was set up in January 1968 with the broad objective of establishing a nationally recognised structure of courses and qualifications for practising computer staff, issued its first report during the year. In reviewing its first year of operation, the Committee commented 'The Committee's first year has been mainly concerned with surveying the existing qualifications in computer studies and identifying the more obvious gaps. Much will have to be done in the next few years to make the Committee's work better known to ensure that it is able to play a full part in the vital field of computer education. This can be done only if colleges and employers accept its qualifications as those normally to be expected of those seeking employment as computer practitioners.'

32. The Department continued with its arrangements for the attachment to industry of experienced further education teachers of computer subjects with the aim of widening their knowledge of the latest computer techniques. A further 16 teachers joined various firms for periods of 6 weeks during the summer and it is hoped to extend this scheme during 1970.

Further Education Information Service

33. The Further Education Information Service again operated during August and September.

34. The purpose of the service is to give advice to boys and girls wishing to pursue full-time courses of higher education who have not found places by the late summer. As in previous years, L.E.A.s undertook the responsibility for providing the service through officers known as local advisory officers (L.A.O.s) who were available to give individual young people information and advice about courses and vacancies. The Department sent out to the 250 L.A.O.s each Tuesday a list of the vacancies still available in the full-time and sandwich degree and higher national diploma courses offered by some 130 polytechnics and other colleges. The weekly lists were compiled from college returns of vacancies which were submitted each Friday during the period the service operated.

35. The Department again produced a folder "*What Next After "A Levels"*"* for distribution to sixth-formers and to students taking G.C.E. advanced level and ordinary national certificate and diploma courses at technical colleges. Over 160,000 copies of the folder were distributed together with 40,000 copies of a poster designed for display in schools, public libraries and post offices.

National Colleges

36. Arrangements for the assimilation of the National College of Rubber Technology into the L.E.A. system of further education were completed and the college became part of the Northern Polytechnic on 1st September, retaining

* Free from the Department, Room 107, Curzon Street, London, W1Y 8AA.

ing its name. The National College of Heating, Ventilating, Refrigeration and Fan Engineering will become part of the new Polytechnic of the South Bank upon the designation of this institution.

d. ORGANISATION OF COURSES

Courses for Operatives

37. The City and Guilds of London Institute introduced 2 new courses, one for agricultural operatives and one for junior production operatives.

Craft Courses

38. In January, administrative memorandum 2/69 announced the introduction of a new series of craft studies courses in engineering (see paragraph 12). Twenty-one courses were announced and some pilot experiments were conducted at colleges in the 1968-69 session prior to their general introduction by colleges in September 1969.

39. Six other craft courses were introduced covering catering, composing subjects, floristry, forestry, road work, and compression ignition engines.

Technician Courses

40. The development of these courses continued with the introduction of 11 new ones, 6 of which brought in further stages to basic technician courses already in existence. Other new courses were launched in structural engineering, food, plumbing, printing, production and quality control.

National Certificates and Diplomas

41. The development of new schemes continued with the introduction by the Joint Committee for Mathematics, Statistics and Computing of higher national certificates and diplomas in computer studies. A limited start only was made in the year but courses are expected to be more generally available in 1970 (see paragraph 29).

42. The year also saw the introduction of ordinary and higher national diplomas in agricultural subjects covering commercial horticulture, amenity horticulture and poultry, as well as general agriculture (see paragraph 47). Ordinary and higher national diplomas were introduced by the Joint Committees for Hotel Keeping and Catering and for Institutional Management. At the ordinary level these 2 schemes provide for a common first year, giving students the choice of admission to the second year of either one or the other.

43. Following the introduction in 1968 of the higher national diploma in food technology, an award at ordinary level was started in 1969.

44. A number of joint committees made fundamental revisions to their existing schemes and major amendments in respect of electrical and electronic engineering, sciences, applied physics, naval architecture and textiles were published or were in the course of preparation by the end of the year. A complete review of courses in distribution was also undertaken by the joint committee responsible for awards in this field.

45. The Joint Committee for Cartography and Surveying held its first meetings and made substantial progress towards the preparation of rules and

a scheme for ordinary national certificate courses which should start colleges in 1970. It hopes to follow these with courses leading to higher national certificates within a year or two.

46. The possible inclusion of an option in industrial measurement and control under the auspices of the Joint Committee for Higher National Certificates and Diplomas in Engineering was advanced, and late in the year it seemed likely that courses offering this option would be made available in colleges in 1970.

Agricultural Education

47. Following the establishment in 1967 of the Joint Committee for National Awards in Agricultural Subjects, the first group of 6 higher national diploma and 15 ordinary national diploma courses commenced in the autumn of 1969 at a total of 15 centres. The National Poultry Diploma Board announced that the examinations for the national certificate in poultry practice which it administers would be held for the last time in 1971. A new qualification to be known as the national stockman's certificate in poultry practice will be awarded in its place by the Joint Committee for National Awards in Agricultural Subjects on satisfactory completion of a 2-year course organised on a sandwich basis.

Management and Business Studies

48. Enrolments in courses leading to the diploma in management studies for the academic year 1969-70 were 5,087 in October. This compared with 4,493 in 1968-69. There were 2,983 first-year students compared with 2,651 in 1968-69.

49. In July a 3-week course for teachers of management was held at Loughborough University of Technology under the scheme sponsored jointly by the education service and the Foundation for Management Education. The course was attended by over 90 members of staff of management studies departments at colleges of further education, industrial training boards and a large commercial organisation. Instruction was given to the course by both British and American teachers.

50. The Foundation for Management Education continued to sponsor the scheme to send selected teachers of marketing from both universities and further education establishments to spend a year studying the subject in the United States. Four teachers started their courses in the autumn.

51. The Management Education Training and Development Committee of the National Economic Development Council published its first report. The report's main recommendations were that management education should be regarded as a priority national investment; that the total provision of full-time postgraduate places should be trebled by 1975; that the proportion of holders of those places supported from public funds should be increased substantially; that there should be a separate central body for the administration of management studies awards; that an intensive programme should be devised for the recruitment and development of management teachers; that there should be increased provision in educational establishments for research; and that there should be increased provision of courses in the field of labour management. The National Economic Development Council

received the report, agreed to its publication and endorsed the Committee's present and future programme of work. No decisions were taken on the specific recommendations for immediate action. Consideration of these was begun in the Department and in other departments concerned.

52. Numbers on courses leading to the certificate in office studies increased from 9,272 in 1968 to 9,634 in 1969. The certificate was awarded to 2,098 students in 1969, a slight decrease on the 2,114 certificates gained in 1968. The first courses for the higher certificate in office studies started at 12 colleges in September 1969.

53. The full-time basic training courses for young office workers, lasting about 10 weeks, which began in 1967 failed to attract sufficient numbers of students and a number of colleges introduced during the year shorter courses of 3-5 weeks which met with better response. The first 2-year part-time courses for the ordinary national certificate in public administration started in September 1968 ; 1,184 candidates from 77 colleges presented themselves for the first-year examinations.

54. The number of entrants to courses for the ordinary and higher national certificates and diplomas in business studies has grown steadily since 1963, the first year in which all 4 schemes were running. The numbers of examination entrants and of passes in 1969 (with the 1968 figures in brackets) were :

	<i>Entries</i>	<i>Passes</i>
Ordinary national certificate ...	4,314 (3,935)	2,251 (2,188)
Ordinary national diploma ...	2,577 (2,366)	1,827 (1,684)
Higher national certificate ...	1,717 (1,695)	1,316 (1,310)
Higher national diploma ...	1,894 (1,554)	1,399 (1,217)

55. In September there were 18 colleges offering courses leading to C.N.A.A. degrees in business studies (including one offering international marketing with a first year enrolment of 1,118 students). In addition one college offered a course leading to a C.N.A.A. degree in accounting for which 26 students enrolled.

56. Some 1,000 chartered accountant students with at least 2 G.C.E. advanced level passes began a 9-month full-time course in September at 19 colleges. The courses, which were first introduced in 1966 at 4 colleges with about 120 students, are prepared by the colleges ; the internal college examination at the end of the course gives exemption from the intermediate examination of the institute of Chartered Accountants. A member of the Institute is involved in the setting and marking of examination papers at each college.

Food Technology

57. The Department is helping teachers and lecturers in the expanding departments of food education in technical colleges and colleges of education to keep abreast of important research developments in the field of food technology by circulating periodically simplified information concerning current developments. The first issue was well received in the colleges.

e. ART EDUCATION

National Advisory Council on Art Education

58. The National Advisory Council on Art Education (N.A.C.A.E.) met 3 times during the year mainly to review the work of the Joint Committee of the N.A.C.A.E. and the National Council for Diplomas in Art and Design (N.C.D.A.D.) which was set up in 1968 following the unrest in some colleges. The Joint Committee, under the chairmanship of Sir William Coldstream, continued with its review of the structure of art and design education in colleges and schools of art.

Survey of Employment

59. It was announced in August that following discussions in the Joint Committee the Secretary of State had commissioned the Government Social Survey to conduct a survey of the employment of people who complete courses in art and design. The aim of the study will be to gather information about the employment prospects of artists and designers, with particular reference to industry and commerce, and to identify factors which affect them. It is intended to approach leavers from vocational, diploma and post-diploma courses in a recent year and also to ask employers about the kind of work on which they employ artists and designers. Employers will probably all be asked to give indications of the trends of their future needs.

Diploma Courses

60. Applications submitted by schools and colleges jointly to the Department and the N.C.D.A.D. for approval to offer courses leading to the Diploma in Art and Design (Dip.A.D.) resulted in approval being given for one additional chief study in an existing approved course to run from September. This together with some minor adjustments to the approved intakes to existing courses brought the total number of first year places to slightly more than 2,550. The N.C.D.A.D.'s, quinquennial review of courses which commenced in the autumn of 1968 and continued during 1969 will be completed during 1970.

61. The total number of diplomas awarded by the N.C.D.A.D. in 1969 was 1,835 which represented 94.1 per cent success (94.3 per cent in 1968). The results were as follows:

(i) First Class Honours	...	...	...	...	...	178
(ii) Second Class Honours, Upper Division	...	...	...	...	...	499
(iii) Second Class Honours, Lower Division	...	...	...	...	...	650
(iv) Pass	...	...	...	...	...	508

f. NATIONAL FILM SCHOOL

62. In June the Government announced its acceptance of the recommendation of the Lloyd Committee that an independent national film school should be set up. At the same time a planning committee was appointed under the chairmanship of Lord Lloyd to advise the Secretary of State on the steps to be taken for the establishment of the school with particular reference to its location, buildings and equipment, its staff, and its courses of training. At the end of the year the planning committee was considering the appointment of a director.

* See *Education and Science in 1968*, Section II, paragraph 53.

2. Teacher Training

a. COLLEGES AND STUDENTS

College Development

63. It was estimated that expansion programmes already approved for colleges of education would produce some 119,000 teacher training places outside the universities by 1973-74, as compared with the 111,000 places recommended for that year by the Committee on Higher Education.* Thus, with the expansion of student numbers no longer the overriding priority, it was possible to make plans to devote limited capital resources, over the next few years, to consolidation of the rapid growth of the past decade, which had involved some unavoidable sacrifice of standards of accommodation and amenity. Building projects were approved in principle for a number of colleges of education to remedy the worst of these deficiencies. In addition the Department approved 3 proposals for the amalgamation of colleges, maintained by the Berkshire, Worcestershire and Newcastle upon Tyne local education authorities respectively. The first of these schemes took effect in September, when Bulmershe College of Education and Easthampstead Park College of Education combined to become the Berkshire College of Education. A building project was authorised to concentrate the teaching accommodation of the combined college on the Bulmershe site and was expected to start in 1970-71.

Recruitment

TABLE 15.—*Admissions to full-time courses of initial teacher training*

	1968	1969 (provisional)
Non-graduate entrants to colleges and departments of education:—		
Men	10,684	10,439
Women	28,107	27,586
	38,791	38,025
Colleges of education (technical):—		
Pre-service courses	1,168	1,060
In-service courses	308	302
	1,476(i)	1,362(i)
Art teacher training centres	545	673
Graduates taking one-year courses of professional training:—		
At university departments of education ...	4,633	4,644
At colleges of education	1,424(ii)	1,916(ii)
	6,057	6,560

(i) These figures include both graduates and non-graduates.

(ii) Excluding graduates admitted to initial training courses in colleges of education (technical).

* Cmnd. 2154, H.M.S.O., £1 4s. 0d. [£1·20].

64. As expected, the number of non-graduate students admitted to full time initial training courses was slightly lower than in 1968, but the graduate entry was correspondingly higher. After a period of rapid growth, in which the intake more than doubled in the space of 5 years, the annual non-graduate entry is expected to continue at about the 1969 level, or perhaps slightly to contract; but the total student population of the colleges of education will continue to rise as they provide more places for the large numbers of graduates seeking teacher training, and for the growing number of non-graduate students following a 4-year course leading to the B.Ed. degree.

65. The annual analysis prepared by the Central Register and Clearing House showed that of the non-graduate applicants for college entry in the academic year 1969-70 103 classified as "acceptable" did not obtain places along with 608 classified as "near-acceptable" (compared with 230 and 900 respectively for 1968-69).

66. Of the total of 38,000 non-graduate entrants, about 3,500 men and 4,400 women were embarking on courses of training for work in secondary schools; about 5,000 men and 6,000 women on a junior/secondary training course and about 2,000 men and 17,100 women on courses for primary teaching.

67. At the end of the year the total number of students following courses of all kinds in colleges and departments of education outside the universities was about 112,000, 5,000 more than in 1968 and 1,000 more than the Robbins Committee's estimate for 1973. The total number of students in initial training courses, including those in the university departments of education, was over 115,000 (107,865 in 1968).

Day Students and Students in Lodgings

68. At the end of the year the colleges and departments of education had some 29,804 students living at home, and about 38,018 students in lodgings, compared with 28,200 and 34,850 respectively in 1968. About 27 per cent of the colleges' total student population were living at home, 34 per cent in lodgings, and 39 per cent in college or college hostels (26 per cent, 33 per cent and 41 per cent respectively in 1968).

b. COURSES OF INITIAL TRAINING

Bachelor of Education Courses

69. All the universities maintaining an Institute or School of Education awarded B.Ed. degrees in 1969 to students who had successfully completed a four year course. The proportion of previous third year students completing a fourth year B.Ed. course varied from 3 per cent to 11 per cent and was 5 per cent over the country as a whole.

Professional Training for Graduates

70. Graduate training places in colleges of education were increased either by an expansion of existing college courses or by the development of new courses. Colleges providing a limited number of places were asked to concentrate recruitment on particular subjects or areas of teaching. 44 colleges admitted graduate students in September 1969. Admission to

colleges rose to 1,916 compared with 1,424 in 1968. The announcement in September of a graduate training requirement (Section I, paragraph 20) was expected to increase the demand for training from graduates in future years. Institutes of education were asked at the end of the year to review the provision for graduate training in colleges in their areas in the light of the need to secure viable numbers and economic use of resources. The U.G.C. were able during the year to announce additional recurrent grants to enable university departments of education to increase the number of places they could offer to science and mathematics graduates in 1970 and 1971. During the year consideration was also being given by the Universities Council for the Education of Teachers to possible changes in the pattern and content of graduate training courses.

Colleges of Education (Technical)

71. Although the colleges of education (technical) continued to make every effort to utilise their resources as intensively as possible, the main pressure of "in-service" training was still felt in the summer term when teachers can most easily be released from their duties.

72. In addition to the full-time and sandwich courses provided by all the colleges of education (technical), three colleges were conducting part-time courses of initial training at extra-mural centres situated in further education colleges. The number of students at such courses rose from 250 in autumn 1968 to 305 in autumn 1969; and the establishment of two further extra-mural centres was under consideration.

Courses in France and Student Exchanges

73. Arrangements were continued for students taking French as a main subject to spend a period of study in France. Two courses of 4-5 months were held in both Caen and Tours and, to help colleges which find it difficult to release students for long periods, 3 one-term courses were arranged in Paris. The total number of places was 330. At the request of the French Ministry of National Education, changes were made in the duration and timing of the exchanges of students between colleges of education and *écoles normales*. Only 25 exchanges were arranged in the spring and summer terms but 450 places were made available for the academic year 1969-70 and during the autumn term 36 colleges exchanged 256 students for one month with 55 *écoles normales*. The successful summer vacation course at Dijon was repeated and the number of places was increased to 80.

74. Arrangements were again made for students taking German as a main subject to exchange for 6 weeks with students in teacher training institutions in Germany; 56 students from 8 colleges went to 20 German institutions.

c. COURSES OF FURTHER TRAINING

TABLE 16.—*Courses of further training for teachers included in the Department's programmes*

Nature of course	1969-70		1968-69	
	Number of courses	Number attending	Number of courses	Number attending
One year courses				
Special advanced (including higher degrees in education)	112	1,227	98	1,156
Special educational treatment ...	39	567	38	562
Supplementary	30	233	39	321
Russian	2	11	2	26
Total of one year courses ...	183	2,038	177	2,065
One term courses(i)	182	871	192	1,024
Department's short courses ...	183	9,012	170	9,159

(i) Figures are for the calendar years 1969 and 1968 respectively.

B.Ed. for Serving Teachers

75. Interim arrangements were announced in April 1969 to enable local education authorities to second suitably qualified teachers to the fourth year of existing B.Ed. courses. Further consultations took place on longer term arrangements to increase the opportunities for serving teachers to study for the B.Ed. degree and these arrangements were announced in December. The arrangements provide that 75 per cent of the cost of seconding to full time courses teachers who have had five years' service may be charged to the teacher training pool; they also provide for the financing of part-time and preparatory courses.

Courses for Immigrant Teachers

76. By September, four of the 6 centres providing 4-term courses for immigrant teachers were engaged in the third of their series of courses. The attendance at the time totalled 118 teachers. Advice was given to L.E.A.s about the scope and purpose of the courses and on what seemed to be the most helpful conditions for the employment of the teachers on the completion of their courses.

Area Training Organisations and In-service Training

77. Although most of the short courses open to teachers are provided by L.E.A.s, few authorities have the resources to provide, without outside aid, the full range of courses likely to benefit teachers. Some authorities combine forces to arrange courses, and others seek the co-operation of universities and institutes of education. In some areas, the institutes are playing an increasingly important role in co-ordination and consultation on programmes of in-service training. To encourage this development, the Department offered some institutes short-term grants to enable them to increase their resources for this purpose.

Further Education

Important developments since 1969 included the establishment of the first eight polytechnics (Section II paras. 2-5), the publication of the Haslegrave Report on

technician courses and examinations (Ibid paras. 6-8) and the introduction of a new series of craft studies courses (Ibid para. 12). Photographs show the range and variety of courses in the polytechnics and other

colleges in the further education system, available to 15 and 16 year old school leavers, sixth-formers with 'A' levels and people already in employment who want to improve their knowledge and qualifications.



Technician students on a three-year sandwich higher national diploma (HND) course in mechanical and production engineering investigate component analysis using punched card controlled machine tools.

Urban and regional planning
—BA honours students at
work in a town planning
studio at a polytechnic.



Investigating the relative
acoustical properties of two
partitions in an anechoic
chamber on a BSc honours
applied physics course.



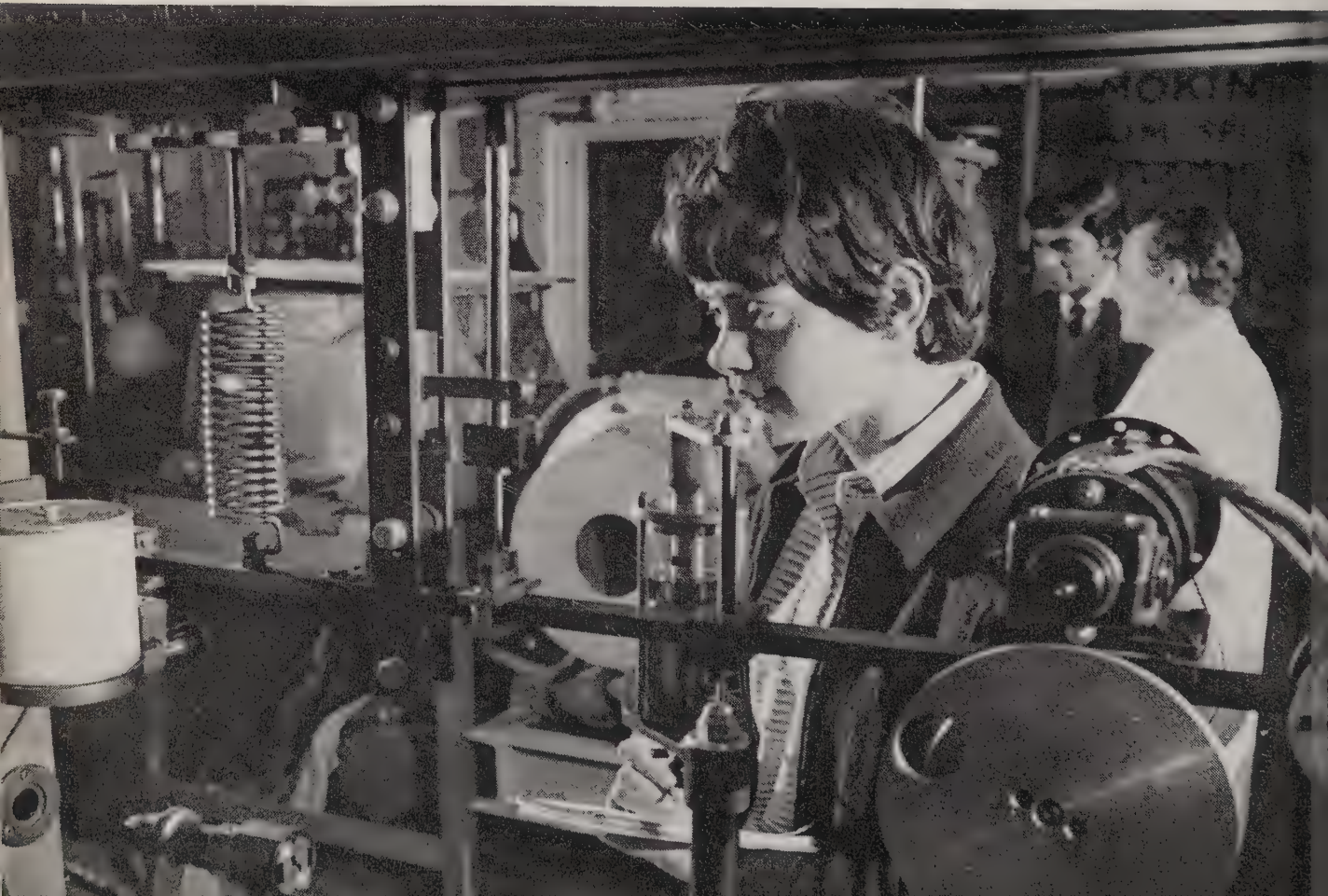
Further Education

top:

Students on a Diploma in Management Studies (DMS) course at a polytechnic consider factory and office layout problems.

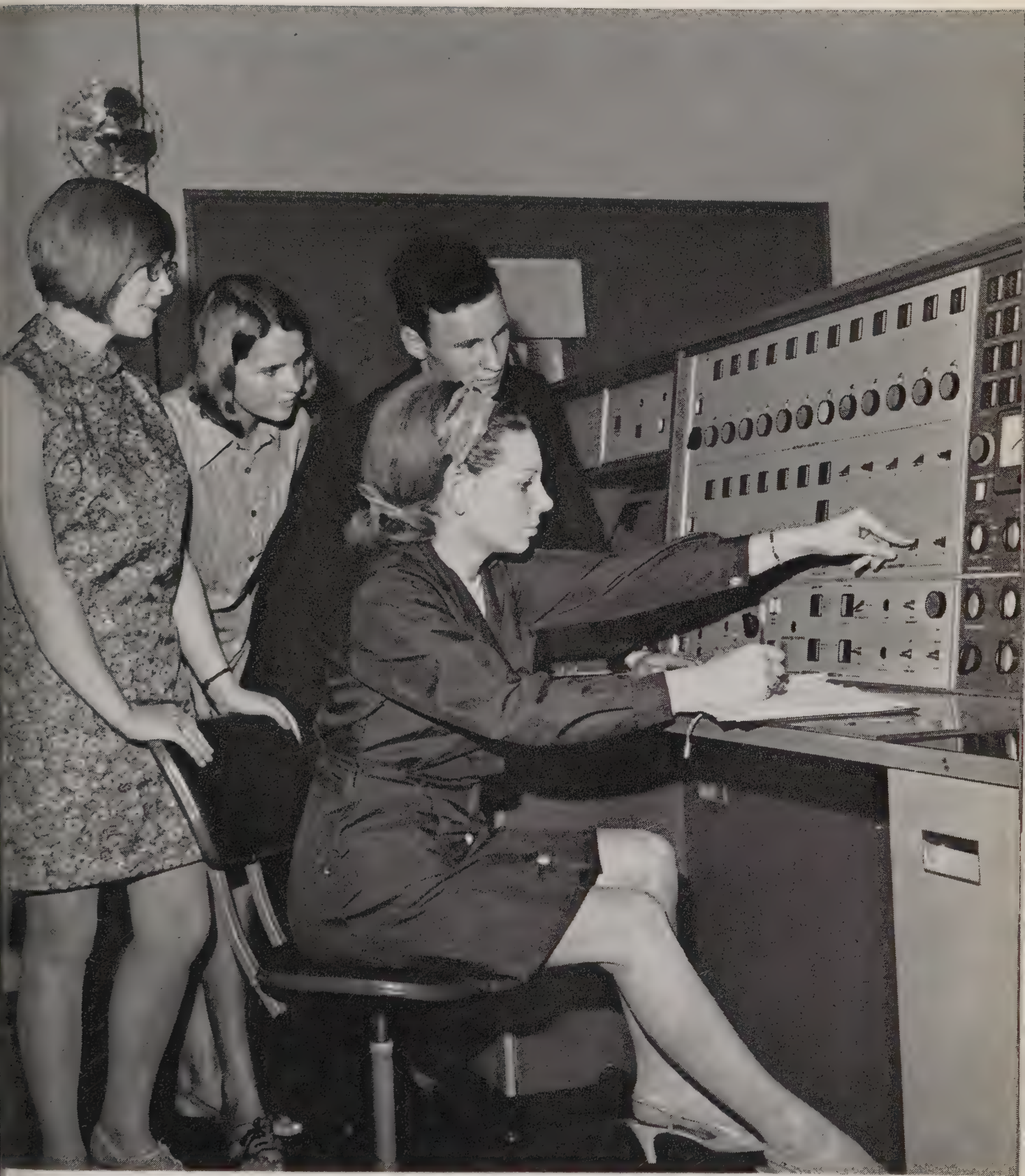
bottom:

BSc civil engineering: harmonic response testing in a polytechnic engineering laboratory.



Further Education

BSc computer science—
there are over 50 computer
installations in polytechnics
and other colleges in England
and Wales.



Further Education

An honours degree project in organic chemistry at a polytechnic.



Art and design students
(DipAD) put the finishing
touches to the display of
their sculpture in a
polytechnic exhibition gallery.



Further Education

top:

A seminar group for business studies students at a polytechnic on a higher national diploma (HND) course.

bottom:

In a nuclear physics laboratory, polytechnic students on a BSc physics electronics course work on a sub-critical reactor.



A day release student on a
chemical plant operators
course at a college of further
education.



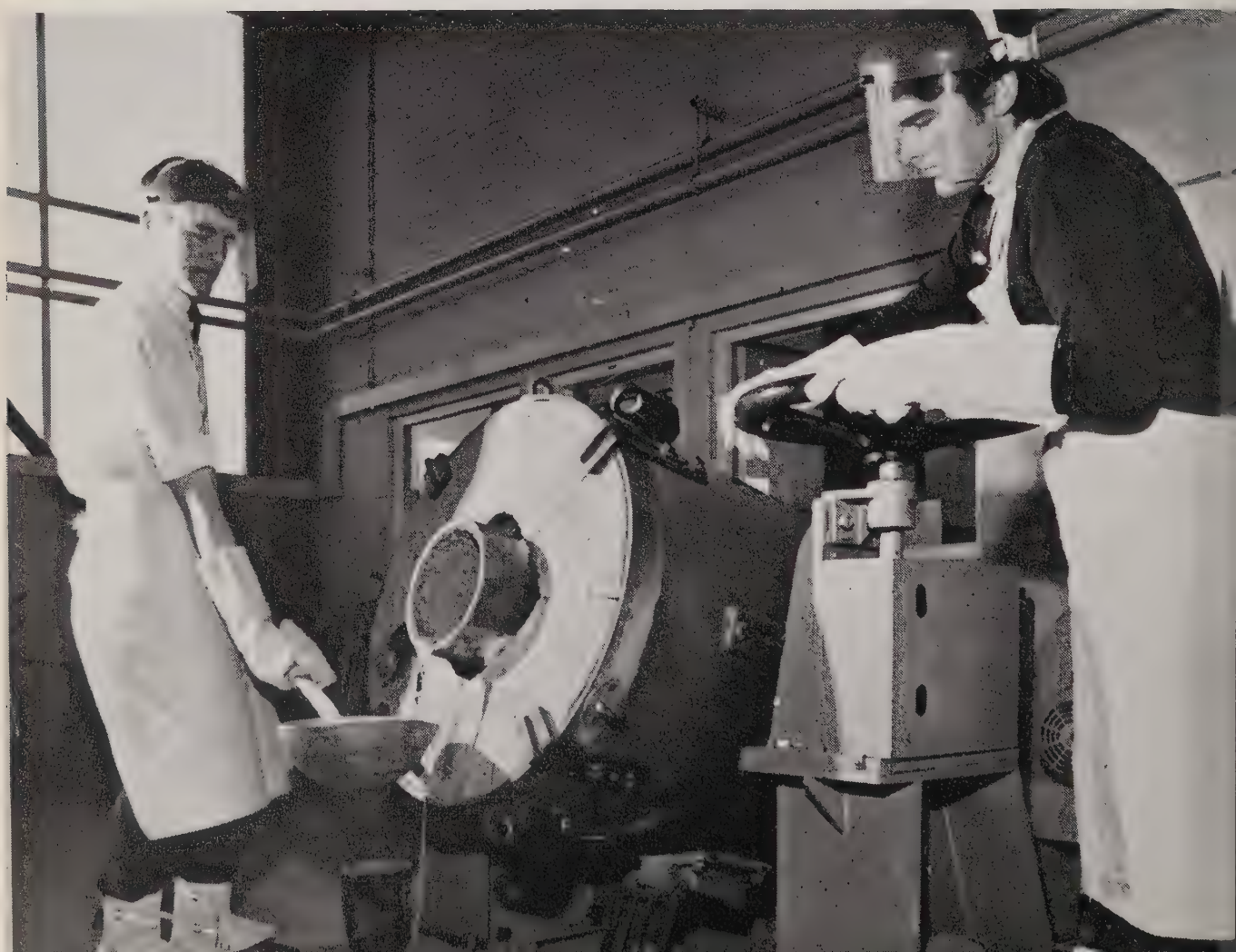
Further Education

top:

Learning a language—over 170 colleges in England and Wales have their own fully equipped language laboratories.

bottom:

Part-time foundry and patternmaking students learn the safe handling of molten aluminium, at a college of further education.



top:

Teaching English as a foreign language to young Indian boys now living in Britain; a number of colleges make special arrangements to help immigrants overcome language difficulties.

bottom:

Young office workers on a part-time Certificate in Office Studies (COS) course at a college of technology.



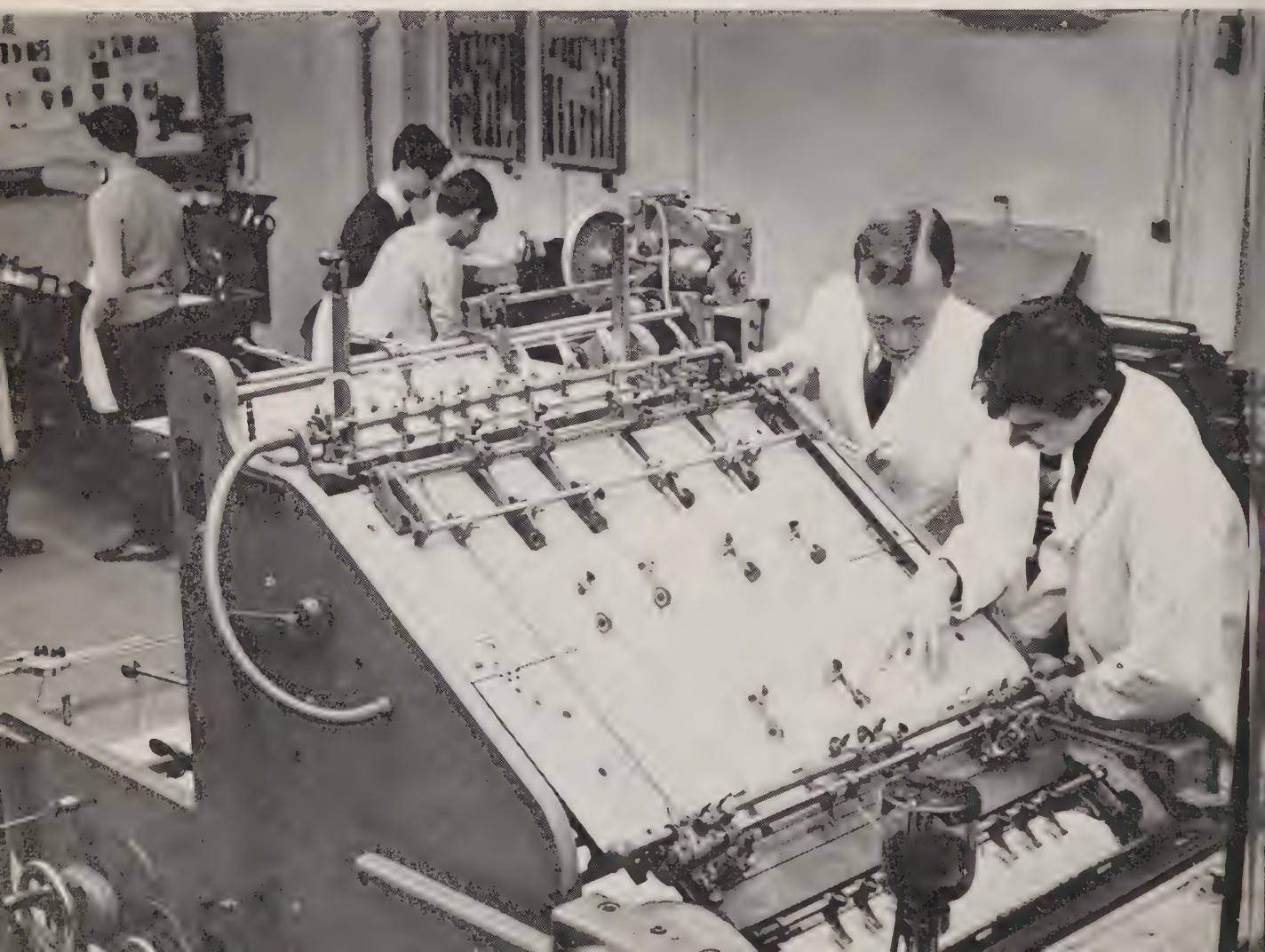
Further Education

top:

General studies form an important part of many courses of further education; these students are recording a play and using a sound effects disc to provide 'noises off.'

bottom:

Printing apprentices in the machine room at a college of technology.



Part-time Courses for Teachers

78. Evidence that teachers in "shortage" categories have difficulty in obtaining release for long courses led the Department to propose an extension of its programme of short courses to include some courses of a substantial character, based on part-time attendance. Plans for some such courses in science and mathematics were well advanced by the end of the year, but the Department does not intend to limit the courses to those subjects. A prerequisite for the Department's sponsorship of such courses is that they should be organised by Area Training Organisations, in conjunction with H.M.I., and that the support of L.E.A.s and interested groups of teachers is assured.

Science Centres for Teachers

79. Centres for physics teachers, set up at universities and colleges on the initiative of the Institute of Physics and the Physical Society* numbered 20 by the end of the year. The Department made grants to the Institute of Biology and the Royal Institute of Chemistry to enable them to undertake similar organisational work. The purpose of the science centres is to provide school science teachers with facilities for regular meetings with their colleagues on the staffs of universities, colleges and industrial firms, and at some centres to provide access to special laboratory or experimental facilities not available in schools.

d. ADMINISTRATION

Government of Colleges of Education

80. The Education (No. 2) Act 1968 was brought into force in relation to colleges of education on 1st July 1969; by that date the instruments and articles of government for all maintained colleges of education should have been made by order of the L.E.A. after approval by the Secretary of State. 1st July was chosen instead of 1st April as originally intended to give L.E.A.s time to reconsider their documents in the light of guidance issued by the local authorities' associations in March on the participation of students in the government of educational institutions. Not all local authorities were able to complete the necessary consultations and to submit acceptable drafts by 1st July but by the end of the year the instruments and articles for nearly all the maintained colleges had received the Secretary of State's approval; about 80 per cent provided for representatives of the students to be included on the governing body.

81. During the year the governing bodies of the voluntary colleges of education re-examined their schemes or instruments of government to see whether changes needed to be made to involve the students more closely in the administration of the colleges.

College of Education Costs

82. Throughout the year the Working Party on Costs in Colleges of Education, which had been set up by the Pooling Committee (Section VII, paragraph 10), continued its work. Members saw the need for more detailed

* See *Education and Science in 1968*, Section II, paragraph 74.

and significant information about college expenditure than was already available and designed a new account form which both local education authority and voluntary colleges completed in respect of their financial year 1968-69. Collation and analysis of the information began with the object of formulating acceptable limits of cost in all fields of college expenditure. As a first step, in July the Pooling Committee published a memorandum on unit costs and student/staff ratios in colleges of education which referred to the existing wide variations in costs in colleges and to the necessity of reducing these if the limited funds available were to be distributed equitably and to the best advantage. The memorandum then dealt with teaching staff costs, which amount to about 60 per cent of all expenditure on tuition. Student/staff ratio bands appropriate to various sizes of colleges were proposed as follows:

<i>Size of College</i>				<i>Ratio Band</i>	<i>Mid-ratio</i>
Under 350 students	...	...	...	9.4—11.0	10.2
350 to 549 students	...	...	...	9.9—11.1	10.5
550 students and over	...	...	...	10.1—11.3	10.7

83. Tables of comparative costs in local education authority colleges of education based on the new account forms for 1968-69, were issued in November. The Pooling Committee then published a second memorandum asking authorities to examine critically the reasons for the comparative positions of their colleges in the tables and to take them into account when deciding the level of their expenditure for 1970-71.

3. Adult Education, the Youth Service and Sport

a. ADULT EDUCATION

Russell Committee

84. In February the Secretary of State, considering that this important and growing part of the education service needed a new definition of its role in a changing society, announced the establishment of an independent committee of inquiry under the chairmanship of Sir Lionel Russell, to examine the purpose and structure of adult education. The Committee's terms of reference were :—

“To assess the need for and to review the provision of non-vocational adult education in England and Wales ; to consider the appropriateness of existing educational, administrative and financial policies ; and to make recommendations with a view to obtaining the most effective and economical deployment of available resources to enable adult education to make its proper contribution to the national system of education conceived of as a continuing process through life.”

L.E.A. Provision

85. Student enrolments at evening institutes in November were 1,347,000 (1,394,742 in 1968). In addition, there were many students in non-vocational and recreational classes at other further education establishments.

Responsible Bodies

86. 247,606 students attended courses provided by Responsible Bodies in the session 1968–69 (240,000 in 1967–68). Grants paid by the Department towards the teaching costs of Responsible Bodies in the session 1968–69 totalled £1,268,572 (£1,145,400 in 1967–68).

Residential Colleges

87. The total student population in long-term residential colleges rose from 193 in 1951–52 to 425 in 1968–69. This increase was facilitated by the physical expansion of the colleges, the capital cost of which was grant-aided by the Department. Annual maintenance grants paid to these colleges in 1968–69 were (1967–68 in brackets) :—

Ruskin College	...	...	...	...	£55,565	(£47,000)
Coleg Harlech	...	...	...	...	£50,138	(£31,440)
Plater College	...	...	...	...	£16,264	(£13,500)
Hillcroft College	...	...	...	...	£19,336	(£15,500)
Fircroft College	...	...	...	...	£19,742	(£16,500)

88. During 1968–69 1,967 (1,821 in 1967–68) courses were held in residential establishments maintained or assisted by L.E.A.s. 60,827 students were involved (60,814 in 1967–68).

89. Grants made by the Department to national associations concerned with adult education are listed at Appendix C.

b. THE YOUTH SERVICE

Youth Service Development Council Report

90. As the end of the ten-year Youth Service development period recommended by the Albemarle Report approached, the Youth Service Development Council published, in October, their report *Youth and Community Work in the 70s**. A summary of its conclusions and recommendations was published as a special issue of *Youth Service*†. In his Foreword the Secretary of State welcomed the Report and said that the Government was examining the wide issues it raised in consultation with the many bodies concerned and would announce their conclusions in due course.

Full-time Youth Workers

91. The number of full-time youth workers, qualified and unqualified in post shown in the Department's register at the end of 1969 was about 1,820 (1,580 in 1968). A total of 201 youth leaders qualified during the year (227 in 1968) 134 of whom were trained at the National College for the Training of Youth Leaders (140 in 1968). A new basic training system for full-time youth workers and community centre wardens was expected to start in autumn 1970, and consultations to this end continued.

Current Grants to National Voluntary Youth Organisations

92. A full list of these grants is at Appendix A. Headquarters grants offered by the Department to national voluntary youth organisations totalled £369,635 in 1969 (£346,700 in 1968). Experimental grants totalled £26,958 (£36,500 in 1968). The Department's support to the Young Volunteer Forces Foundation was £51,000 (£35,000 in 1968).

Buildings

93. The 1970-71 Youth Service building programme was announced in December with a total building cost of £5m. (£4.5m. in the 1969-70 building programme). Grants offered by the Department during 1969 towards voluntary capital projects totalled £892,231 (£1,067,000 in 1968).

Youth Service Information Centre

94. The Centre's establishment was enlarged in 1969 to deal with the considerable expansion of documentation and the growth of enquiries from a wide range of workers with young people. The monthly Digest had a subscription list of over 2,000 and details of publications were circulated to a mailing list of 8,000. The first edition of teaching materials used in youth work training was published, and groups were established to assist in the development of new teaching materials. The second series of youth work project summaries was in hand and an annotated list of 350 experimental and development projects was completed. The calendar of courses and conferences became a regular four-monthly publication. A select list of 1,000 items of research in youth work, adolescence and allied fields was issued. Work began on the preparation of an annual year book for the Youth Service in England and Wales. Links were made with youth documentation centres in other European countries.

* H.M.S.O., 15s. 0d. [75p].

† H.M.S.O., 6s. 0d. [30p] annual subscription for 10 issues.

c. COMMUNITY PROVISION

95. The table below shows the number and value of grants offered to local voluntary bodies (1968 figures are shown in brackets).

TABLE 17.—*Capital grants offered to local voluntary bodies*

Type	Number	Value
		£
Village halls	200 (193)	371,200 (382,400)
Community centres	25 (28)	147,700 (157,200)
Total	225 (221)	518,900 (539,600)

d. SPORT AND PHYSICAL RECREATION

Government Responsibility for Sport

96. On 23rd October responsibility for sport and physical recreation was transferred to the Minister of Housing and Local Government. Mr. Denis Howell retained his special responsibility for sport on becoming Minister of State at the Ministry of Housing and Local Government.

Sports Council

97. Following the resignation of Mr. Menzies Campbell, Mr. Arthur Tiley and Mr. Dan Smith, 3 new members joined the Sports Council during the year. They were Mr. Peter Heatly, the Chairman of the Commonwealth Games Council for Scotland and a former international diver, Mr. W. S. Hicks, a former sports editor of the *Daily Mail*, and Mr. P. S. Liddell, Vice-Chairman of the Northern Advisory Council for Sport and Recreation.

98. The Sports Council published its second report in October. *The Sports Council: A Review 1966-69** recorded progress in the field of sport and physical recreation as well as detailing the activity of the Council's committees and listing the grants offered by the Government to national and local voluntary sports bodies.

Regional Sports Councils

99. There were 3 changes in chairmanship during the year. Mr. W. M. Roberts became chairman of the North West Sports Council in place of Mr. Paul Rose, M.P., who resigned in February; Alderman Edgar Hiley replaced Alderman Sir Frank Price as chairman of the West Midlands Sports Council and Lord Rupert Nevill took over the chairmanship of the Greater London and South East Sports Council from Mrs. Peggy Jay.

100. It was another busy year for regional sports councils. They continued to advise on the priorities to be accorded to both local authority proposals for capital investment in sport and physical recreation and applications for grant from local clubs. The work of the Councils in encouraging the joint

* Free from the Central Council for Physical Recreation, 26 Park Crescent, London, W1N 4AJ.

planning of community sports facilities with school building began to bear fruit. At the end of the year there were about 150 schemes at various stages of consideration.

Current Grants to National Voluntary Organisations

101. There was a further increase in the total expenditure on grants under the Physical Training and Recreation Act, 1937 to national voluntary organisations towards the cost of administration and national coaching programmes. Grants totalling over £750,000 were offered to 96 organisations in 1969-70 (£723,961 to 91 organisations for the previous financial year when 1 offer was not taken up). This included over £500,000 to the Central Council of Physical Recreation (C.C.P.R.) for its work in England and Wales. A full list of the grants is given at Appendix B.

Capital Grants under the Physical Training and Recreation Act, 1937

102. A total of £912,943 was offered to local voluntary organisations to assist with the capital cost of providing new and extended facilities for sports. This covered 367 projects. (Offers in 1968 totalled £790,316 to assist with 311 projects.) Grant payments during the year totalled £826,438.

103. Work started during the year on the National Sports Centre for Wales, Cardiff, towards which a Government grant of £640,000 has been offered. This multi-sports complex will include a large sports hall, several smaller halls, squash courts, rifle range, swimming pool, residential accommodation and restaurants, offices and committee rooms for sports bodies.

104. The Department offered a grant of £30,000 towards the cost of building Britain's first indoor sports centre for the physically handicapped at Stoke Mandeville which was opened by Her Majesty The Queen on 2nd August.

105. A Government grant of £247,000 was also offered towards the cost of providing a national rowing and canoeing regatta centre at Holm Pierrepont near Nottingham. This facility, which will cost in total £570,000 is being provided in conjunction with the Nottinghamshire County Council as part of a water park. The centre will be managed by the Central Council of Physical Recreation.

Research

106. Two bursaries for the training of research assistants were awarded to university or college lecturers to study research techniques under senior research workers under the scheme recommended by the Sports Council. The total number of bursaries awarded since the introduction of the scheme in 1966 amounted to 14.

107. During 1969 grants were offered on the recommendation of the Sports Council for the following research projects:—

- (a) Studies by the Soil Science Unit of the University College of Wales Aberystwyth into (i) the soil characteristic required to provide the

most suitable drainage for sports fields and (ii) the turf surfaces best suited for particular games: grant £5,520.

- (b) Contribution to a National Angling Survey: grant of £4,000 to the Natural Environment Research Council.
- (c) Pilot study to outline a programme of research in water-based recreation: grant of £550 to Birmingham University.
- (d) Research into the capacity of swimming pools: grant of £349 to the C.C.P.R.
- (e) Contribution to a research project into factors underlying the capacity for exercise of children aged 5-16 years: grant of £250 to the Medical Research Council.

108. The new Documentation Centre at Queen's University, Belfast, which is being supported by Government grant for a period of 5 years, came into operation during the year.

109. The report of an inquiry by the Government Social Survey into the present pattern of participation in outdoor and physical recreation and the frequency and manner of use of public open spaces among people living in the urban areas of England and Wales, which was supported by a grant from the Department, was published in September. The report *Planning for Leisure** gave much useful information which will be helpful in planning future facilities.

International Events, Conferences and Courses

110. Grants totalling £75,811 were offered on the recommendation of the Sports Council for a wide variety of events taking place during the financial year 1969-70 (grants totalling £37,924 were offered for events and conferences in 1968-69). The grants included offers for visits to Australia, Canada, Cuba, India, Japan, U.S.A., West Indies, Guyana and the Caribbean by national teams representing archery, badminton, fencing, gliding, women's lacrosse, men's hockey, netball, rifle shooting, soccer and wrestling. Grants were also offered to schools associations for hockey, soccer and sailing events and conferences taking place in Austria, Belgium, Eire and Germany.

111. Grants were offered for home events of outstanding importance; these were the World Canoe Sailing Championships at Grafham Water, the European Badminton Championships at Aberavon, the International Canoe Federation Conference, the Biennial Congress of the International Skating Union and the World Billiards Championships, all held in the London area.

112. A new scheme of grant aid for pre-Olympic training was inaugurated in August. Following discussions between the Sports Council and the governing bodies of the 23 sports involved, offers of grant were made in respect of an extended programme of overseas competition, preparation training at home and, in the case of some sports, overseas training and special coaching and equipment.

* H.M.S.O., £1 15s. 0d. [£1.75].

113. Details were also announced during the year of a pilot sports bursary scheme designed to encourage young people of Olympic potential to continue with their training. The pilot scheme provided for up to 11 residential bursaries covering athletics, gymnastics and swimming at the national sports centre at Crystal Palace. In addition specialist coaching facilities were made available at Crystal Palace for a further 10 young people living in the London area. Bursaries are open to young people of Olympic potential aged 15 to 18 who have left school, who cannot get adequate training facilities nearer home and who are, or intend to be, in whole-time employment, or undergoing an apprenticeship or in full-time further education.

Professional Sport

114. The report of the working party under Sir John Lang which examined the problems associated with crowd behaviour at football matches was published in December. The working party made recommendations for practical measures by which clubs might be able to control hooliganism in football grounds.

SECTION III

THE UNIVERSITIES (GREAT BRITAIN)

Introduction

1. This section does not traverse in detail the subject matter of the various reports of the University Grants Committee (U.G.C.) and other bodies concerned with university development during the year. It is confined to matters in which the Department has been concerned. Besides dealing with the universities on the U.G.C. grant list, this section includes information about certain institutions receiving direct from the Department grant that is carried on the Vote for Universities and Colleges, etc., in Great Britain.

a. UNIVERSITY GRANTS COMMITTEE

2. Mr. Kenneth Berrill succeeded Sir John Wolfenden, C.B.E., as Chairman of the Committee in January.

b. UNIVERSITY FINANCE

Recurrent Grants

3. At the end of 1968 the general level of recurrent grants to universities was reviewed on the advice of the U.G.C. On 19th February it was announced that, in the light of increased costs (excluding academic salaries), the following supplementary grants would be paid from April 1970 onwards :—

<i>Academic Year</i>							<i>£m.</i>
1969–70	...	...	...	...	...	...	1·785
1970–71	...	...	...	...	...	...	5·550
1971–72	...	...	...	...	...	...	5·750

On 17th September, a further supplementary grant, amounting to £1·45m. for the financial year 1969–70, was announced in the light of further increases in costs (including university technicians' salaries).

Building Programmes

4. The value of the building programme authorised for 1969–70 was £29m. An announcement was made by the Government in January authorising £50m. worth of building work to be started in the financial years 1970–71 (£28m.) and 1971–72 (£22m.). £2m. was subsequently added to the 1971–72 programme on account of new buildings for St. George's Hospital Medical School at Tooting.

C. UNIVERSITY DEVELOPMENT

Student Numbers

5. Numbers of students continued to rise ; the provisional figure supplied to the U.G.C. by the universities in October was 219,000 (212,000 in 1968). This compares with the full-time student population of 220,000 to 225,000 in 1971-72 which was allowed for in the quinquennial settlement of recurrent grant.

Management Education

6. During the year the Council of Industry for Management Education announced its intention of launching a further appeal to industry and commerce for £7.5m. The major objective of this would be to finance, in equal shares with the U.G.C., the development of the London and Manchester Business Schools to their full planned size and to continue to provide from industry a half share of their recurrent costs when the funds derived from the 1964 appeal were exhausted. The appeal would enable the Foundation for Management Education, who administer the appeal funds, to contribute to the expansion of management education in other universities and colleges of further education also, although these would in the main continue to be financed from U.G.C. block grants and through L.E.A.s respectively.

Medical Education

7. The Department joined in discussions with the U.G.C., the Health Departments and the Treasury on the recommendations of the Royal Commission on Medical Education, and it was announced in April that the Government agreed that the number of pre-clinical entry places should be increased by about 1,000, to 3,700 by 1975. The U.G.C. advised that this could be achieved by expanding existing schools and the development of the new schools already approved at Nottingham and Southampton.

8. Provisional figures collected by the U.G.C. showed the number of students admitted to pre-clinical schools in October to have been 2,694 (1,975 men and 719 women) compared with corresponding figures in October 1968 of 2,678 (1,995 men and 683 women).

Computing Education in Universities

9. A joint working party of the University Grants Committee and the Computer Board submitted a report which recommended developments in the teaching of computing in universities ; this was still being studied at the end of the year.

Scotland

10. In November Sir Alec Douglas-Home, Chancellor of Heriot-Watt University, officiated at a ceremony to mark the start of work on the new site at Riccarton, Midlothian, to be developed for the university at an estimated cost of £10m. The campus development will provide for a university of some 6,000 students eventually and will include a "research park".

d. THE COMPUTER BOARD FOR UNIVERSITIES AND RESEARCH COUNCILS

11. A number of new university computers were installed on the recommendation of the Board. One of these, at London University, is among the most powerful in the country. Existing installations were expanded to meet increased demands. The Board continued to assess submissions for computer provision. It was particularly concerned with the KDF 9 computers, installed at eight universities, some of which are becoming severely overloaded and will need replacement by large new computer systems in the early 1970s.

12. In June, the *First Report of the Computer Board** was published giving an account of the first few years of the Board's work and its policy.

e. THE OPEN UNIVERSITY

13. The Report of the Planning Committee†, mentioned in the 1968 report, was published on 27th January and, on the same day, the Secretary of State announced in a statement in the House of Commons that the Government accepted the outline plan for development set out in the report.

14. The Open University was granted a Royal Charter at the end of May and at a ceremony on 23rd July this was formally presented to the University, and the first Chancellor, Lord Crowther, was installed.

15. Both the Council and the Senate were established. The Privy Council appointed an Academic Advisory Committee which, during the early years, will have overriding responsibility for academic standards.

16. The headquarters of the University was set up in the area of the new city of Milton Keynes in Buckinghamshire on a site leased from the development corporation. By the end of the year an intensive building programme was well under way and a large proportion of the staff in post. Regional offices were also established throughout the country, to provide direct contact with the students. Recruitment of staff went ahead rapidly and successfully throughout the year, and arrangements with the B.B.C. for partnership in production of the University's courses were consolidated. A pamphlet *Introducing the Open University‡*, was published by the University in November, and a comprehensive prospectus§ in December.

f. ROYAL COLLEGE OF ART

17. After considering the advice of the Visiting Committee, the Secretary of State announced early in the year the College's recurrent grant allocations for the last two academic years of the triennium 1968–71 and the College's capital grant programme for the financial year 1969–70. In the autumn, the Visiting Committee advised the Secretary of State on the College's claims for supplementary recurrent grant for the academic year 1969–70 and for capital grant for the financial year 1970–71. The Committee also initiated discussions with the College authorities about the provision which should be made for its longer-term development.

* Cmnd. 4006, H.M.S.O., 4s. 0d. [20p].

† *The Report of the Open University Planning Committee*, H.M.S.O., 4s. 0d. [20p].

‡§ Free from the Open University, Walton Hall, nr. Bletchley, Bucks.

g. CRANFIELD INSTITUTE OF TECHNOLOGY

18. In December the College of Aeronautics, Cranfield, received a Royal Charter empowering it to change its name to the Cranfield Institute of Technology and to grant degrees. In view of the specialised nature of the Institute it was decided that it would not be appropriate for it to be included on the U.G.C.'s grant list and that the Institute should therefore continue to receive grant direct from the Department. At the end of the year Professor A. J. Murphy, C.B.E., M.Sc., F.I.M., C.Eng., F.R.Ae.S., retired after more than 14 years as Principal of the College and latterly as first Vice-Chancellor of the Institute and was succeeded by Professor A. H. Chilver, M.A., D.Sc., formerly Chadwick Professor of Civil Engineering, University College London.

h. UNIVERSITY ACADEMIC SALARIES AND SUPERANNUATION

Salaries

19. In December 1968 the National Board for Prices and Incomes published its first report, No. 98, under the standing reference on the pay of university teachers. As recorded in the 1968 report*, the Government had once accepted those recommendations which immediately affected salary levels but left other recommendations for further consideration in the light of the advice of the U.G.C. after their discussions with interested parties. In May the Government, having received advice, announced that it accepted the Board's proposal for a system of distinction awards to professors (non-clinical) for outstanding merit, particularly in the establishment and running of teaching departments; these were to be allocated by individual universities whose permissible average salary for professors would be increased by 4 per cent. The Government also agreed that there should be some system of discretionary payments for individual merit to non-clinical grades below professor, but with the modification that only one-third of the sum recommended by the Board should be used for this purpose; the other two-thirds should be distributed as a further general pay increase for these gradees. The distinction awards and the discretionary payments would be effective from 1st April 1969, and not 1st October 1969 as recommended by the Board. The further general increases for grades below professor would be payable from 1st October 1968.

20. The general increases, excluding distinction awards and discretionary payments, brought non-clinical basic scales to:

assistant lecturers and lecturers: £1,240 × £115 (14)—£2,850;

senior lecturers and readers: ranges with varying maxima up to £3,670;

professors: minimum £3,780, permissible average salary £4,675.

21. It was also announced that London allowances would continue to be paid in respect of new as well as existing appointments, pending further studies by the Board. The practicability of establishing negotiating machinery for the pay of university staff was under discussion throughout the year with the U.G.C., the Committee of Vice-Chancellors and Principals and the Association of University Teachers.

* *Education and Science in 1968*, Section III, paragraph 18.

22. In February 1969 the Review Body on doctors' and dentists' remuneration (the Kindersley Committee) made their tenth report; recommendations for changes in hospital salaries from 1st January 1969 were accepted by the Government and applied to clinical salaries in universities.

Superannuation

23. The implications of the Report* made by the Working Party established under the chairmanship of Sir George Maddex were pursued by university interests in consultation with the U.G.C., the Department and other Government departments concerned.

i. U.G.C. PUBLICATIONS

24. *Statistics of Education 1967 (Volume 6) Universities†*, published by the U.G.C. in September, related to university students and finance in 1967-68. Their *Annual Survey‡* for the academic year 1968-69, describing university developments during most of the period covered by this report, was about to be published at the end of the year, as was *First Employment of University Graduates 1967-68§*.

* H.M.S.O., 6s. 6d. [32½p].

† H.M.S.O., £2 2s. 6d. [£2·12½].

‡ Cmnd. 4261, H.M.S.O., 4s. 0d. [20p].

§ H.M.S.O., 10s. 0d. [50p].

SECTION IV

LIBRARIES (ENGLAND AND WALES) AND INFORMATION SYSTEMS (UNITED KINGDOM)

Introduction

1. A new branch of the Department was formed in April. It consists of the Office for Scientific and Technical Information together with a newly created Libraries Division, with responsibilities under the Public Libraries and Museums Act, 1964 which include not only public libraries and local museums but also the work of the Library Advisory Council for England, the regional systems of library co-operation and the National Central Library. The Division also has responsibility for National Libraries policy and all general policy matters relating to libraries.

1. Libraries

a. LIBRARY ADVISORY COUNCIL FOR ENGLAND*

2. Following the publication in 1968 of the *Report of the Library Advisory Councils for England and Wales on the Supply and Training of Librarians*,† the Secretary of State issued circular 6/69. This summarised the main findings of the report and indicated the need to restrict the output of librarians for the time being. Subsequently the Councils established as a Standing Committee the Joint Committee which had produced the report in order to keep under review the many developments which are taking place. It has considered the effect on library staffing of the increase in the number of first degree courses in librarianship and information science; the need to provide further courses for librarians with basic librarianship qualifications; and the arrangements for making awards to students during periods of attachment to libraries as part of library school courses.

3. The Joint Committee on Standards, established in 1967, continued its work and by the end of the year had completed its recommendations on staffing standards in public libraries for consideration by the two Library Advisory Councils. It is expected that a report on this subject will be produced by the Councils in the course of 1970, together with a report on the provision of service points.

4. The Library Advisory Council for England recommended in 1967 the establishment of a central loan collection of books for Indian and Pakistani immigrants. During 1969 arrangements were completed which enabled the Birmingham City Libraries to set up a central loan collection on a self-supporting basis. Local public libraries will pay for the loan of books, which will be lent freely to readers. Progress was also made over the problem of helping libraries that serve immigrant populations from India and Pakistan to select and acquire suitable books.

* An account of the independent activities of the Library Advisory Council for Wales is given in Section VI, paragraphs 62-64.

† H.M.S.O., 6s. 6d. [32½p].

5. The Council also submitted its views to the Secretary of State on the report of the National Libraries Committee (see paragraph 13). Later in the year, at the request of the Secretary of State, the Council submitted its views on a departmental working party paper on the practical arrangements which would be involved in putting into effect the Arts Council's proposals for a Public Lending Right Scheme. In doing so the Council made it clear that it was not in any way endorsing the case for introducing such a scheme.

b. PUBLIC LIBRARIES AND MUSEUMS

Expenditure by Local Authorities

6. The current expenditure of local authorities in England and Wales on the provision of public libraries, museums and art galleries in 1968–69, compared with the previous year, is shown in the following table.

TABLE 18.—*Expenditure by local authorities under the Public Libraries and Museums Act, 1964*

	1967–68	1968–69	Percentage Increase
	£m.	£m.	
Public Libraries	40·0	43·3	8·2
Museums and Art Galleries ...	3·9	4·4	12·8
Total	43·9	47·7	8·7

7. Much of the increase in expenditure was due to higher prices and salary and wage awards. The amount spent on books rose from £9·9m. to £10·5m. There were some improvements in library buildings and staffing.

8. Expenditure on public libraries, museums and art galleries is assisted by the Exchequer through rate support grants paid by the Ministry of Housing and Local Government under the Local Government Act 1966 and related to estimates of local authority expenditure. The estimate of expenditure on these services used as a basis for grants in 1968–69 was £47·9m. Corresponding estimates for 1969–70 and 1970–71, as increased in the autumn of 1969 to take account of rises in pay and prices, were £53·4m. and £57·1m.

Public Library Authorities

9. Loan sanctions to the value of £3·6m. were issued in the financial year 1968–69 in connection with new library buildings or improvements to existing buildings. Work was started on four new central libraries, including the new Central Library at Birmingham, which will be the dominant feature of the cultural and educational complex planned for the centre of the city. About 50 branch library buildings were also started during the year. In view of the continued financial restrictions on local authority expenditure, loan sanctions during the financial year 1969–70 were agreed only for urgently required projects, on the basis of information supplied by library authorities in response to Public Libraries Circular Letter No. 5, issued in February.

10. The number of library authorities at 31st December 1969 was 3911. During the year orders were made authorising the following authorities to relinquish their powers: Milnrow and Clayton-le-Moors District Councils to Lancashire County Council.

11. The Department's Library Advisers made comprehensive inspections of public library services at Anglesey, Gosport, Lincolnshire (parts of Kesteven), Merthyr Tydfil and Salford, and a more limited investigation at Bradford. Statistical analyses have been made of the provision and use of books in the public library services of authorities listed above and, for comparative purposes, in those of a further four authorities.

Museums and Art Galleries

12. Loan sanctions to the value of approximately £110,000 were issued during the financial year 1968-69 in connection with urgently required improvements to local authority museums and galleries.

c. NATIONAL LIBRARIES

Report of the National Libraries Committee

13. The Report of the National Libraries Committee* was published in June. This Committee was set up at the end of 1967 to examine the organisation and functions of some of the most important national libraries, and to consider whether they should be brought into a unified framework. Their main recommendation was that a new statutory independent body, to be called the National Libraries Authority, should be established which would assume responsibility for the administration of the British Museum Library, the National Reference Library of Science and Invention (at present part of the British Museum), the National Central Library, the National Lending Library for Science and Technology and the British National Bibliography. The Science Museum Library, which was included in the Committee's terms of reference, should not be administered by the Authority, but should be administratively integrated with the libraries of Imperial College. The management policies of the National Libraries Authority should be the corporate responsibility of a Board consisting of a Chairman and up to four other full-time members and three part-time members.

14. As regards the location of library units and the siting of new national libraries, the Committee recommended that all the Authority's loan stocks, including those of the National Central Library in London, should be brought together at Boston Spa, Yorkshire (the present location of the National Lending Library for Science and Technology). An inter-library loan location service and a National Reports Centre should also be established at Boston Spa. The site for a new National Reference Library to replace the existing British Museum Library should be in central London, preferably Bloomsbury. A new building for the National Reference Library of Science and Invention should also be in central London, but in this case the main consideration should be the convenience of the patent workers who make up a large proportion of the present library's users.

* Cmnd. 4028, H.M.S.O., £1 8s. 0d. [£1.40].

15. Among a number of changes proposed in the field of inter-library lending was a recommendation that a small number of large libraries should be developed to carry special responsibilities in this field: the Committee considered the libraries of the universities of Oxford and Cambridge to be particularly well-fitted for this role. It was also recommended that there should be strictly controlled lending to users in other libraries of certain types of publication from the stocks of the British Museum Library. Other topics examined in the report included photocopying facilities, reference services, the impact on the national libraries of computer and other technology, national bibliographic services, co-operation between the national and other libraries, and library research and training.

16. In the final chapter of their report, the Committee attempted to estimate the real costs of providing the country's existing national library services and the financial implications of the changes which they recommended. They concluded that, "with an expenditure of national resources no greater than that which would have been necessary on the national libraries, had they continued their independent existences and present policies, it will be possible to develop a national library information system unequalled elsewhere, providing greatly improved services for users of every type . . .". The Committee emphasised, however, that it is inevitable that information facilities of all types are bound to become more costly as the total quantity of recorded knowledge grows and as better services are more heavily used.

17. The Government have been considering the recommendations of the National Libraries Committee as a matter of urgency, taking into account the views of those who would be affected by them.

A.D.P. feasibility study

18. It was announced in December that a project team would be established at the University of Bath under the direction of the University Librarian, Mr. Maurice B. Line, to undertake a feasibility study into the application of automatic data processing to the operations and services of the main national libraries and other organisations providing central services for the country's library system. This is a major study which is expected to take 1½ to 2 years to complete.

The National Lending Library for Science and Technology

19. The rapid growth in the use of the Library's services continued, an increasing proportion of the total demand being met by photocopies. The following figures illustrate the position:—

			<i>Total loan requests received</i>	<i>Total photocopy requests received</i>	<i>Total loan and photocopy requests received</i>
1966	...	...	483,999	37,568	521,567
1967	...	...	591,496	43,987	635,483
1968	...	...	715,700	62,787	778,487
1969	...	...	807,085	121,224	928,309

20. The issue of books (as distinct from periodicals) continued to increase and to reduce waiting lists it was necessary to buy additional copies of many titles.

					<i>Number of books issued</i>
1966	...	...	...	...	22,234
1967	...	...	...	...	28,994
1968	...	...	...	...	42,300
1969	...	...	...	...	63,024

21. There was a substantial increase in the demand for photocopies both from the United Kingdom and abroad. During the course of the year the production of photocopies was reorganised, enabling the Library to give a service comparable in speed with that of the loans service.

					<i>Number of requests from U.K.</i>
1966	...	...	...	...	31,915
1967	...	...	...	...	33,527
1968	...	...	...	...	43,087
1969	...	...	...	...	84,662

					<i>Number of of requests from abroad</i>
1966	...	...	...	...	5,653
1967	...	...	...	...	10,460
1968	...	...	...	...	19,700
1969	...	...	...	...	36,562

22. The growth in the input of literature increased. The following figures for the number of current periodicals received indicate the general position:—

End of 1966	...	...	...	...	26,289
1967	...	...	...	...	29,693
1968	...	...	...	...	31,904
1969	...	...	...	...	34,300

23. During 1969 the Library organised 13 courses on the use of science and social science literature. Four of these courses were related especially to the computer-based medical literature retrieval service (MEDLARS). The number of questions received by this service was 3,048 (2,321 in 1968).

24. Increased use was made of the resources of the Library for bibliographical work. In addition to abstractors working for *Food Science and Technology Abstracts*, the *Zoological Record* placed staff permanently at the Library to index some of the literature received.

25. It is often difficult to publish the large amount of data accompanying articles submitted for publication in the scientific literature. Consequently the Library has launched a pilot experiment, in which it will act as a centre for the storage and dissemination of such material.

The Science Museum Library

26. The Science Museum Library moved into new premises. These form part of a new building which was opened by Her Majesty the Queen, and which also houses the Lyon Playfair Library of the Imperial College of Science and Technology.

The National Central Library

27. Section 9(2) of the Public Libraries and Museums Act, 1964 empowers the Secretary of State to make grants to bodies providing facilities to library authorities which are likely to assist them in the discharge of their statutory duty. The National Central Library was the only body receiving such a grant in 1969. In practice this Library, which maintains a large bookstock as well as arranging inter-library lending with the help of its union catalogues, has been largely supported by grants from the Department (and formerly direct from the Treasury) for many years. In the financial year 1969-70 the grant was £250,400 of which £50,000 was specifically for the purchase of books.

d. INTER-LIBRARY CO-OPERATION

28. In April the London and South Eastern Library Region came into being as a result of the amalgamation of the two voluntary organisations which formerly arranged inter-library co-operation in Inner London and South-East England. One of the Department's Library Advisers serves as an assessor on the Council and Management Committee of the new Region.

29. During the year the voluntary organisation covering the East Midlands conducted an experiment by basing its staff handling requests for books, other than current British books, at the National Central Library. They are thus in a position to ascertain whether required books were in the stock of that Library before seeking them elsewhere. Similarly the records of book stocks in the East Midlands were available for checking by the Library's staff. The continuance of the scheme will be considered in the light of a report covering the first six months' operation.

30. A report has been received on the pilot project on computer-assisted methods of maintaining records of the non-fiction stock of co-operating libraries in the South-East of England, referred to in the 1968 report*. It has been considered in conjunction with proposals for developing a computerised system for producing records of locations for libraries throughout the country. Further study, financed by the Office for Scientific and Technical Information, is planned.

e. COLLEGE LIBRARIES

Libraries of Polytechnics and Further Education Colleges

31. The current standards for library accommodation are set out in *Notes on Procedure for the Approval of Further Education Projects* issued in 1967 and re-issued in 1969. They include provision for tutorial and seminar rooms to be used for instruction in library use and make increased provision for colleges with over 30 per cent advanced work. No separate standards have been issued for library provision in the new polytechnics, but research into the general accommodation requirements of polytechnics has

* *Education and Science in 1968*, Section II, paragraph 100.

already provided useful guidance on the considerations which should affect the size of library provision, including private study accommodation. The first stage of the Newcastle Polytechnic Library is now in use, the new Hatfield Polytechnic Library is nearing completion and the new library for the Lanchester Polytechnic, Coventry is at an advanced stage of planning.

Libraries of Colleges of Education

32. The Department's direct responsibilities for libraries in colleges of education are confined to the voluntary colleges not maintained by local authorities. However local authorities often find it convenient to regard the standards of library provision established by the Department as useful norms for their own guidance.

33. Colleges were invited to submit proposals for 1969-70 for building additional library and private study accommodation where the existing provision fell short of the standards for new construction. Revised scales of accommodation for the library and private study space were set out in a further edition of *Notes on the Procedures for the Approval of College Education Building Projects*, issued in January.

34. Guidance on the design and layout of libraries in colleges of education was issued in February under cover of College Letter 4/69. The text was based on a study by a small group of H.M. Inspectors, with the help of one of the Department's Library Advisers and one of the Department's Architects and drawing on the comments received at two conferences of college education librarians.

35. For the first time notional staffing scales for libraries of various sizes were issued to assist voluntary colleges in preparing their estimates (College Letter 6/69). The scales had regard to the recommendations of the Second Report of the Committee on Non-Teaching Staff. Within the financial limits, however, colleges were free to vary the suggested staff complements as they saw fit.

36. Revised arrangements were announced (College Letter 6/69) for the payment of book grant to voluntary colleges in respect of B.Ed. and other degree students. These covered an initial grant, based on a notional number of B.Ed. subjects for a college of a given size, to be paid over a period of three years, and a recurrent grant for each student in the final year of the course.

2. Office for Scientific and Technical Information (OSTI)

37. The 1969-70 Vote for the Office of Scientific and Technical Information totalled £741,000—£499,000 for support of external work and £242,000 for the Documentation Processing Centre. By the end of 1969 there were 20 Scientific and Experimental Officers on the Headquarters staff and 14 at the Documentation Processing Centre (DPC).

a. MECHANISED DISCIPLINE-BASED SERVICES

38. Major experiments with discipline-based mechanised bibliographical services continued to be a central feature of OSTI's support programme. The main developments were as follows.

Physics and Electrotechnology

39. The support to the Institution of Electrical Engineers for the development of INSPEC was continued. This is a fully computerised information system covering physics, electrotechnology and control. From January, the three parts of *Science Abstracts* and the corresponding current awareness journals were produced by computer-typesetting methods, and magnetic tapes containing bibliographic details and abstracts of all the items appearing in the journals were formed as an integral part of this process. Continued development of the project has been directed to exploitation of these tapes, including work on the content and manipulation of the machine file, a study of software and hardware requirements for on-line editing and retrieval and an investigation of natural-language selective dissemination of information (SDI).

40. INSPEC has aroused considerable interest abroad and the Institution is currently supplying tapes for experimental purposes to institutions in U.S.A., Canada and the major European countries. It is also co-operating with the Organisation for Economic Co-operation and Development, the International Council of Scientific Unions and UNESCO in the co-ordination of international standards and services.

Chemistry

41. During the past three years, research work carried out by the Chemical Society Research Unit at Nottingham University provided much useful experience in the operation of computer-based information services and in the development of techniques for evaluating these services. This year the Unit became the research and development section of the U.K. Chemical Information Service (UKCIS), which was set up by the Chemical Society on behalf of a consortium of learned societies and other interested bodies. Cost-recovery experiments were initiated by UKCIS and these fall within the responsibility of a separate service section. OSTI continued to support the research effort of UKCIS, currently focused on the development of programmes for sub-structure searching of compounds registered in the compound registry system of the U.S. Chemical Abstracts Service and assessing an inverted-file search system. OSTI supported complementary work at the Experimental Information Unit, Oxford University, including an intensive evaluation of three widely differing information services by a team of liaison scientists working in conjunction with groups in most British universities.

Medicine

42. The MEDLARS system of medical information continued on an experimental basis.* The service, which comprised retrospective searches and a small but growing number of current-awareness searches on each monthly tape, was provided by the National Lending Library for Science and Technology (NLLST), supported by computer processing mainly at DPC. The Newcastle University Computing Laboratory received a grant to develop research into on-line use of MEDLARS. During the first half of 1969 1,160 searches were run for users within the United Kingdom, 155 for the French *Institut de la Santé et de la Recherche Médicale* and 76 for other overseas users. A growing proportion of the U.K. search requests were received through the four MEDLARS liaison officers—46 per cent during the first half of the year.

Biology

43. BioSciences Information Services, the American non-profit-making organisation which publishes *Biological Abstracts*, supplies an information service (*B.A. Previews*) on magnetic tapes covering 220,000 items a year. In 1969 it offered a year's free supply of tapes to OSTI which awarded grants to carry out an experimental investigation of this tape service at the Universities of Oxford and Nottingham, drawing on their previous experience of similar OSTI-supported investigations in chemistry. In setting up this project, advice was taken from the Committee on Biological Information and the project advisory committee will include members of that Committee representing its three parent bodies—the Institute of Biology, the Biological Council and Aslib.

b. SPECIALISED INFORMATION AND DATA ACTIVITIES

Information Centres

44. OSTI support for specialised information centres is designed to investigate the problems and potential scope of such centres during a period of increasing international interest. Resources are concentrated on a small number of centres where research, experiment and evaluation can be carried out. The areas covered are biodeterioration, intestinal absorption and related subjects, high-temperature processes, rock mechanics and ergonomics. Additionally, two data centres (see paragraph 45) embrace information activities. An independent study was completed on the methods and operations of a number of specialised information centres, and the results of this were arranged into a form suitable for use by other organisations interested in establishing their own centres.

Reference Data Activities

45. OSTI's support of reference data activities is designed to contribute to expert critical appraisal of scientific data in those areas where the need is most pressing. The field is so large that effective international co-operation is essential, and this is achieved through membership of the British National Committee of Data for Science and Technology and through the

* See *Education and Science in 1968*, Section IV, paragraph 41.

link between this committee and the Committee on Data for Science and Technology (CODATA) of the International Council of Scientific Unions. Three data centres are supported—in mass spectrometry, crystallography and the thermodynamic properties of gases—the first two also acting as information centres. Assistance is given to several other projects including a data centre for high-temperature processes and research towards a data bank in atomic and molecular physics. Preliminary discussions were held on the feasibility of providing a central deposit at the National Lending Library for Science and Technology for voluminous amounts of data too large for publication in the normal way.

46. A new edition of the directory *Critical Data in Britain 1966–67* was issued under the title *Data Activities in Britain 1969*. This volume contains 105 entries, and identifies those areas where data compilation work is being undertaken in this country. Internationally, it forms the basis for the U.K. contribution to the CODATA compendium of reference data activities, which is being compiled in Frankfurt.

c. DOCUMENTATION PROCESSING CENTRE

47. There was a satisfactory build up of staff in 1969. Processing of MEDLARS searches and the Institution of Electrical Engineers' SDI experiment continued, together with experimental work affecting program and user facilities for these systems. The Centre extended its research programme as well as contributing advice to OSTI projects and participating in national and international working parties on information standards. Authority was received during the year for the provision of a research computer at the Centre and for new accommodation. The computer will be used to provide centralised facilities for external research projects financed by OSTI and for the Centre's own research studies.

48. A major part of the Centre's programme involves work on a file-handling system for bibliographic data in order to provide the generally required processes of updating, selection, sub-file creation, inversion, managing of data and generation of collated indexes. When developed the system could form the basis of a sequential file processing system for bibliographic data with a more complicated record structure. The Centre was also concerned with the formulation of documentation standards for use in both its own systems and those produced on OSTI projects. A study was commissioned on the problems of management of large volumes of data on a computer. A further study is being undertaken of the "state of the art" of on-line computing.

49. A line-printer was ordered to provide high-quality output in an off-line mode. The repertoire of characters specified will provide alphabetic print in upper and lower case, as well as special symbols for chemical diagrams, mathematical, logical and bibliographical use. Some preparatory work was undertaken for the representation of chemical structure diagrams; these were simulated by the use of an off-line terminal linked by a telephone line to a commercial computer. Work also commenced on the formulation of a command language for the data on a range of output devices. A "state of the art" review of computer typesetting in the U.K. was published.

50. At the request of the Advisory Committee on Scientific and Technical Information, an advisory committee was set up for the Centre under the chairmanship of Dr. G. M. Dyson.

d. INFORMATION RESEARCH

51. Basic studies on the nature of language were concluded at Birmingham University and the Cambridge Language Research Unit; greater understanding of language and its structure could contribute to more effective means of information retrieval in the future. A project on articulated subject indexing at the Postgraduate School of Librarianship and Information Science, Sheffield University, moved from a developmental to an experimental-production phase in which a number of bibliographies were indexed by the new system. An evaluation of various indexing systems, conducted at the College of Librarianship, Wales, was extended to enable a relational-indexing system developed at City University to be compared with other systems.

Library Research

52. Early in 1969 the British National Bibliography, with OSTI support, started on an experimental basis a regular computer tape service to a representative network of 15 university, public and special libraries. Towards the end of the year compatible U.S. MARC tapes were also distributed to the network for tests.

53. As part of the joint Southampton/Loughborough library automation project Loughborough University completed the final design specification of the periodicals control system and programs were written and tested. In addition programs were developed for a cataloguing system for reports and papers. The feasibility and design study for the Southampton University ordering and accession system was completed and, when programming is also completed, the system will initially run in parallel with the existing manual system.

54. At Bristol University OSTI is giving partial support to a two-year study of the feasibility of automating library systems and services using shared computer facilities. The study is based on the 5 university institutions to be linked in the South-West regional computer network—Bath, Bristol, Exeter, University College of South Wales and Monmouthshire and University of Wales Institute of Science and Technology—which will share the remaining costs of the project.

e. SOCIAL SCIENCE INFORMATION

55. An investigation into the information requirements of the social sciences, based on the Bath University of Technology, continued as the central project in this field. OSTI's earlier support of research in certain specialised areas—notably in the applied social sciences—bore fruit in the publication by the Library Association of a report on information needs and resources in town and country planning; by the British Institute of Management of a thesaurus suitable for retrieval services in this area; and by the University of Sussex of a report on the feasibility of setting up a multi-media catalogue of materials in educational technology. Following the experimental

current-awareness service mentioned in the 1968 report* OSTI is considering with the House of Commons Library partial support for a feasibility study of mechanising its information processes. The response to a brief questionnaire by recipients of the experimental service indicated that any permanent service would have to give wider coverage and greater depth to be of maximum value to the wide range of potential users. The new study will explore the feasibility of this growth in relation to other sources of social science information.

f. EDUCATION, TRAINING AND LIAISON

Education and Training

56. To encourage universities to run short courses for research staff and students on information sources in the natural sciences and technology, OSTI circulated to those institutions which expressed an interest, some notes for guidance in providing such courses. In conjunction with the NLLST a course in the literature of the social sciences was run for technical college librarians. The courses in the literature of chemistry, mentioned in the 1968 report†, are now being repeated in certain areas for local colleges.

57. There was a substantial increase this year in the number of post-graduate awards made by the Science Research Council to courses in information science leading to an M.Sc. at the City and Sheffield universities which the Council accepted for support under its advanced course studentship scheme on OSTI's recommendations. In all, 19 were taken up by students in 1969.

Liaison

58. Support continued for experiments in liaison between new mechanised services and interested users. This year OSTI sponsored the appointment, for an experimental three-year period, of six information officers in university libraries to study the rôle of such officers in exploiting library resources and introducing new information services to university users. It is envisaged that they will be responsible for the education and training of academic staff and postgraduate students in the use of all information resources for science and technology. The experiment, it is hoped, will enable the effectiveness of such officers with a broad information function to be compared with that of the more specialised liaison officers for the new mechanised services.

Co-operation at Home and Abroad

59. OSTI's co-ordinating functions have continued. Trends during the year included increasing co-operation between those responsible for research on mechanised services, increasing interest among universities in liaison and library/automation experiments and international exchanges between OSTI and equivalent organisations in the U.S.A. and Czechoslovakia.

Publications

60. The controlled circulation of *OSTI Newsletter*‡ expanded during the year and citations in other publications at home and abroad underline its

* *Education and Science in 1968*, Section IV, paragraph 52.

† *Education and Science in 1968*, Section IV, paragraph 53.

‡ Free from OSTI, Elizabeth House, York Road, London, S.E.1.

value as a source of information on research and other developments. The 1969: 3 issue (September) included a complete list of published reports resulting from OSTI-supported projects; this list will be updated at regular intervals.

61. The 1968–69 edition of *Scientific Research in British Universities and Colleges** marked the end of a long association with the British Council, its originators. In future the Register is to be compiled wholly within OSTI. *Volume III, Social Sciences*, increased in size at a higher rate than the longer established volumes. Sales increased too—evidence of its growing acceptance as a valuable reference book on current research.

Advisory Committee for Scientific and Technical Information

62. At the beginning of the 1969–70 session this Committee consisted of Dr. F. S. Dainton (Chairman), Dr. J. W. Barrett, Mr. J. G. N. Brown, Dr. G. M. Dyson, Mr. D. J. Foskett, Dr. J. Howlett, Professor N. Mackenzie, Professor W. J. M. Mackenzie, Professor G. D. Sims, Dr. J. E. Smith and Dr. W. F. Watson.

* H.M.S.O. Volume I, Physical Sciences, £3 5s. [£3·25].
Volume II, Biological Sciences, £3 2s. 6d. [£3·12½].
Volume III, Social Sciences, £3 0s. 0d. [£3].

SECTION V

CIVIL SCIENCE (UNITED KINGDOM)

Introduction

1. This section, dealing with developments in the area of civil science which is the responsibility of the Secretary of State, is supplemented in considerable detail by the annual reports of the 5 Research Councils and the British Museum (Natural History). Therefore the notes on their activities are brief. Fuller accounts follow of the work of the Council for Scientific Policy, for which the Department provides the secretariat, and the International Scientific Relations Division (I.S.R.D.). In the middle of the year, by a reorganisation of the Department's 2 Science Branches, I.S.R.D. became part of a single enlarged Science Branch and the Office for Scientific and Technical Information (OSTI) formed part of a new Libraries and Information Systems Branch. (See Section IV, paragraphs 37-62.) The rôle of I.S.R.D. remained the promotion and co-ordination of international scientific activity both within the area of responsibilities of the Secretary of State and, in some cases, interdepartmentally where the Division performed a co-ordinating function. Scientific manpower is dealt with in Section VII, paragraphs 102-107.

a. FINANCE

2. The science votes for the financial year ending 31st March 1970 totalled £94·7m., divided as follows:

	<i>£m.</i>
Science Research Council	45·8
Medical Research Council	17·1
Agricultural Research Council	14·7
Natural Environment Research Council	11·7
Social Science Research Council	2·4
Science grants and services	1·5
Natural History Museum (including a building programme on M.P.B.W. vote)	1·2
Documentation Processing Centre	0·3

3. Taken together, these votes (excluding that for the Social Science Research Council) comprised the "Civil Science Budget"; they represented an increase in real terms (i.e. taking price rises into account) of 5·6 per cent on the corresponding votes, including supplementary estimates, for 1968-69.

b. THE RESEARCH COUNCILS, ETC.

Science Research Council (S.R.C.)

4. The Council maintained 6 laboratories of its own, 3 of them devoted essentially to the provision of research facilities for universities. The contribution to CERN, ESRO and the NATO scientific programme in 1969-70

totalled £12.1m. During the academic year 1968-69 new research grants worth £11m. were made to universities for work of "timeliness and promise" and 2,213 new post-graduate research studentships and fellowships in sciences and technology, and 1,254 new advanced course studentships, were awarded.

5. In various fields of research, areas were identified in which additional support seemed desirable on scientific, economic or social grounds, and the selection of other fields continued. The additional funds were in some cases largely concentrated on a limited number of research groups, in order to achieve the maximum result. Nevertheless, the Council reaffirmed its determination to support individual research workers of outstanding quality in any field.

6. In a reorganisation during the year, an Engineering Board and a Science Board were set up in place of the former University Science and Technology Board. Each of the new Boards is concerned with both pure and applied research in its field, and the Engineering Board is to give advice on the functions of the S.R.C. related to industrial activities other than research and development. The Council continued to give increased emphasis to the support of research projects and postgraduate training of special interest and value to industry.

Medical Research Council (M.R.C.)

7. The Council maintained its National Institute for Medical Research at Mill Hill, London and 75 Research units; it also supported as members of its external scientific staff some 100 scientists working independently or in small teams. It made grants to 1,249 individual research workers at universities and elsewhere and awarded 627 new fellowships and studentships; it also provided support for 30 research groups and continued to assist a number of autonomous research institutions by means of block grants.

8. Work on the Clinical Research Centre at Northwick Park continued. It will provide a wide range of expertise and equipment not usually found in one hospital, and though it will have its own laboratories it will be closely integrated with the adjoining district hospital. It is expected to open in 1970 and the M.R.C. has already appointed a number of scientists and clinicians to develop the research programmes they will pursue at the Centre.

Agricultural Research Centre (A.R.C.)

9. The Council supported research in its 24 institutes and units and grant-aided 16 independent organisations. It advised the Department of Agriculture and Fisheries for Scotland on the research programmes of 88 organisations grant-aided by that Department. The Council made 104 research grants to university departments and 4 new training awards in 1969-70.

10. The reorganisation of the Council's facilities for food research, based mainly on the new Research Institutes for Meat and Food at Bristol and Norwich, were virtually completed during the year.

11. The Council established 2 new units: the Unit of Invertebrate Chemistry and Physiology to study the chemical physiology of invertebrates with particular reference to the insect pests of agriculture ; and the Unit of Developmental Plant Physiology and Pathology to investigate the physiology of control of plant processes by hormones and other agents.

Natural Environment Research Council (N.E.R.C.)

12. The Council maintained 7 research organisations and units of its own and grant-aided 8 independent bodies. It supported 412 groups and individuals at universities and elsewhere and awarded 391 new studentships and fellowships.

13. The Council strengthened and broadened the field of work in many areas of its research. Study of the physical systems of the coastal sea areas was developed at existing N.E.R.C. institutes and at its new Institute of Coastal Oceanography and Tides (formerly the Tidal Institute of the University of Liverpool). Increased resources were applied to the survey of the U.K. Continental Shelf by the Institute of Geological Sciences designed to delineate the areas of potential hydrocarbon and other mineral significance. The Institute of Hydrology was strengthened to provide a sound scientific basis for water resource management and information for flood control measures.

Social Science Research Council (S.S.R.C.)

14. New commitments entered into in 1969 in support of research projects in universities and elsewhere amounted to £1.8m. (£1.4m. in 1968-69) ; 1,210 new studentships and fellowships were awarded (921 in 1968-69).

15. The Council took over responsibility for the award of bursaries for diploma and certificate courses in management and planning previously within the discretionary powers of local education authorities ; the number awarded was 400. Approval was given to the Council's proposals for setting up 3 research units—on survey work, race relations and industrial relations.

British Museum (Natural History)

16. Construction began on an extension to the Museum's outstation at Tring. Authority was given in the autumn for a major extension to the main building at South Kensington.

c. THE COUNCIL FOR SCIENTIFIC POLICY (C.S.P.)

17. During the summer Sir Harrie Massey, F.R.S., who had been Chairman of the Council for Scientific Policy since it was set up in January 1965, informed the Secretary of State of his wish to retire from the chairmanship on completing 5 years in office. The Secretary of State accepted Sir Harrie's resignation with regret. He invited Dr. F. S. Dainton, F.R.S., Vice-Chancellor of Nottingham University and a member of the Council since its inception, to succeed to the chairmanship from January 1970.

18. During 1969 the Council has been particularly preoccupied with budgetary issues. The declining growth rate of the science budget in recent years and increasing cost arising from the sophistication of research led the Council to pay very careful attention to the possible implications of this

situation for the research councils' freedom of manoeuvre in supporting new areas of research and to any consequential effect upon morale in university science and technology departments.

19. A number of working groups and feasibility study groups set up by the C.S.P. were active during the year. The Council's Working Group on Biological Manpower under Dr. R. D. Keynes continued its surveys of qualified biologists and other graduates doing biological work in industry and Government. The involvement of the life sciences in food production, in the maintenance of health and in the quality of our environment underlines the importance of this area of knowledge which is likely to grow during the next few decades in both the pure and applied fields. Because of the need to adapt to a changing situation, qualified manpower requires flexibility to investigate new ideas and utilise them efficiently. The working group looked at the implications of this for the education and continued training of biologists.

20. At the end of 1968 the Council set up a working party under Sir Harrie Massey to consider what should be the U.K. attitude to the proposals by the Council of the European Molecular Biology Organisation (E.M.B.O.) for a European Laboratory of Molecular Biology.

21. The Council discussed the increasing interest in the possible long term economic benefits flowing from scientific research, and appointed a working group under Professor H. G. Johnson of the London School of Economics "to consider possible methods of quantifying the economic benefits of scientific research; to advise what studies might be commissioned for this purpose; and to report from time to time to the C.S.P.". The group commissioned feasibility studies at 2 universities and placed contracts for long term substantive work. A further Science Policy Study, No. 4, *An Attempt to Quantify the Economic Benefits of Scientific Research** was published as a contribution to discussion. This study, rather than offering a cut-and-dried set of results, proposed one way in which an economic assessment might be made, and constituted a prospectus for further work.

22. The joint working group which is studying the criteria for the development of a system of support for scientific research in the universities giving particular attention to the implications of retaining initiative and freedom of manoeuvre for the individual researcher, continued its working during the year. The group is likely to report in 1970.

23. During the year the C.S.P. also set up a feasibility study under Dr. A. W. Merrison to examine what action might be taken on recommendations in recent reports to promote closer links between pure and applied sciences with particular reference to engineering education and its relation to industrial needs. The members considered the wide range of existing reports; the action taken by universities on the recommendations of the Swann, Jones and Dainton reports, in-career training courses for scientists, technologists and school teachers; university first degree entrance requirements; and the approach to technology in the schools. The group recommended that the C.S.P. should set up a standing committee to keep under review developments in this field in consultation with other bodies conducting relevant studies.

* H.M.S.O., 4s. 0d. [20p].

24. Conscious of increasing public concern about the problems of pollution, the Council set up a feasibility study group, under Dr. C. E. Lucas, to examine what rôle the C.S.P. might play in identifying and recommending for further study unintended consequences to the environment of scientific and technological operations. The group reported to the Council at the end of the year.

25. The Council's Standing Committee on International Scientific Relations continued to give its advice on questions of international scientific relations and to keep under review developments in international scientific affairs. To assist it, the Standing Committee set up a working group under Sir Harold Thompson to review the operation of the Royal Society's European Programme of bilateral exchange agreements and to make recommendations for its future development in the light of existing arrangements for scientific interchange in Europe. Much of the work of this group will involve the collection of as comprehensive data as possible about scientific interchange in Europe.

26. During 1969 the Council received the results of research projects which it has financed on the motivation behind the movements of graduated natural scientists into industry; and of case studies on innovations in science based industries which have received the Queen's Award for Industry. It also commissioned studies on the quantification of the economic benefits of scientific research (see paragraph 21); and case studies into important aspects of international co-operation in science and on the time-lag in the dissemination of ideas between the conception and publication of research. Following the publication of Science Policy Study No. 1, *The Sophistication Factor in Science Expenditure*,* a further series of studies covering a large number of university science and technology departments was undertaken.

27. During the year members of the Council visited Canada and the U.S.A. in November for discussions with North American science policy bodies and research funding agencies, and the Council acted as hosts at one of its meetings in April to members of the German Wissenschaftsrat. Members of the Council also had discussions with the Canadian Senate Committee on Science Policy and with Dr. Lee A. DuBridge (Science Adviser to President Nixon) during their respective visits to the United Kingdom in September and October. In addition, individuals or groups of visitors who met the Council or consulted the secretariat came from Australia, Brazil, Czechoslovakia, Finland, France, Iran, the Irish Republic, Italy, Japan, Mexico, Nepal, Nigeria, Norway, the Philippines, Poland and Portugal, as well as from the Organisation for Economic Co-operation and Development.

d. INTERNATIONAL RELATIONS (SCIENCE)

Intergovernmental Organisations

28. The most significant development in the scientific activities of non-specialist intergovernmental organisations during 1969 was the increasing emphasis given to examination of problems of the environment, more picturesquely described as "The Challenges of Modern Society". A new committee was set up by NATO to stimulate action on specific aspects of

* H.M.S.O., 6s. 0d. [30p].

this broad range of subjects. The OECD scientific programme has long included environmental studies and the emphasis has gradually been shifted towards identifying research that is required by governments in making and implementing control policies. As the Organisation moves into its second decade of operation, its programme will increasingly have to take account of the economic and social consequences of economic growth—in contrast with the work of the first decade when the achievement of economic growth was itself the focus of the Organisation's attention. This may be reflected in attempts to find ways of bringing a wider range of specialisms to bear on problems that have hitherto been tackled by groups solely or mainly composed of research workers. Similar developments are evident in the Council of Europe, the Economic Commission for Europe, and the United Nations itself. As these gain momentum the importance of drawing clear guide-lines for the work of these various organisations increases. Already in 1969, the pressures on the limited number of key specialists were rising rapidly. In intergovernment co-operation in science, I.S.R.D. attempted to concentrate the United Kingdom effort into those organisations which can most appropriately sponsor the work.

29. The programmes of the policy groups of the OECD Committee for Research Co-operation continued to develop and during the year the C.R.C. Materials Research Advisory Group, the Study Group on the Unintended Occurrence of Pesticides, and the Study Group on Innovation in Urban Management held their first meetings. The OECD Committee for Science Policy continued its work on the compilation of statistics, the organisation of fundamental research, and computer utilisation; considerable attention was given to the contributions science and technology can make to society.

30. I.S.R.D. assisted in the preparation of the background document for a Conference of European Ministers of Science which is to take place in June 1970. The Conference, initiated by UNESCO, will bring together for the first time Ministers responsible for science from eastern as well as western European countries to consider scientific research, manpower and applications.

Management Training of Scientists and Technologists

31. An OECD working party was created early in 1969 to consider the feasibility of an International Institute for the Management of Technology. The Department worked closely with the Foreign and Commonwealth Office in providing support for the U.K. representative. The aim of the Institute would be to bring industry and governments in Europe into partnership in order to provide training and facilities for associated research in problems of technological management.

Visits of Importance

32. On the occasion of the state visit to the United Kingdom by President Saragat of Italy, a memorandum of understanding was signed by the two governments creating an Anglo-Italian Committee on Science and Technology with the object of encouraging co-operation in pure and applied science and the introduction of modern technology in industrial production. The Department took part in the discussions leading to the creation of this committee and will be represented on it on the science side; one of the aims

will be to facilitate where possible co-operative arrangements being developed with Italian scientists through the agency of The Royal Society and the Research Councils.

33. Mr. Kiuchi, Minister of State and Director of the Japanese Science and Technology Agency, visited the U.K. at the invitation of the Secretary of State. Following talks with the Secretary of State and officials of the Ministry of Technology, Mr. Kiuchi visited the Radio and Space Research Station of the Science Research Council, and had discussions with the Chairman of the U.K.A.E.A.

34. On behalf of H.M.G. the Secretary of State invited Dr. Rahnema, the Iranian Minister of Education and Science, to visit the Department. Although this visit was primarily concerned with educational matters Dr. Rahnema also visited the S.R.C. and N.E.R.C. On the science side the discussions were focused on the support of scientific research and manpower problems, and the possibility of co-operation.

35. The Minister of State responsible for science met Dr. DuBridge, President Nixon's Science Adviser. Dr. DuBridge had been visiting a number of European countries and spent two days in London on discussions with Ministers and others concerned with government policy for the support of science and technology. The talks between the Minister of State and Dr. DuBridge concentrated on the ways of maintaining scientific vitality during a period of limited funds.

36. Officials of the Department, together with the Chairman of the University Grants Committee and members of the Council for Scientific Policy took part in a broad exchange of views on the formulation and implementation of national science policy with the Canadian Senate Committee on Science Policy during their visit to the U.K.

Exchanges

37. The inter-governmental Agreement on Relations in the Scientific Educational and Cultural Fields was re-negotiated in Moscow in March for a further period of two years. The first of these Agreements was signed 10 years ago in December 1959.

38. Under the Agreement a variety of reciprocal exchanges takes place involving teachers, students, research workers and other academic personnel. Certain provisions of the Agreement make I.S.R.D. responsible for co-ordinating the arrangements for scientific exchanges between Great Britain and the U.S.S.R. The work necessitates close collaboration with the Foreign and Commonwealth Office, the British Council and the Committee of Vice-Chancellors and Principals. Over the years the main change in the Agreement affecting scientific exchanges has been the introduction of a clause whereby the expenses of the agreed quota of visits are borne by the receiving country. This scheme has been in operation for nearly three years and proceeded satisfactorily throughout 1969. In the U.K., the Committee of Vice-Chancellors and Principals seeks the British candidates under this scheme and submits nominations to the British Council and thence to I.S.R.D. for consideration.

39. In addition to the agreed quota of scientific exchanges there are also visits of a "self-financing" kind, i.e. the receiving country has no financial responsibility.

40. Fifteen British scientists and 22 Soviet scientists visited the U.S.S.R. and the U.K. respectively under these exchange arrangements. The field of scientific interests covered included all branches of physical and biological sciences, as well as some social sciences.

41. I.S.R.D. made arrangements usually in conjunction with the British Council for 91 foreign scientists to visit government research laboratories, research associations, government departments and public corporations. Most of these visitors held awards from the British Council, the United Nations Organisation or the Ministry of Overseas Development.

42. In total I.S.R.D. dealt with 113 foreign scientists and scientific administrators during the 12 months ending December 1969.

British Scientific Representation Overseas

43. The year saw the publication of the report of the Review Committee on Overseas Representation, a group set up by the Secretary of State for Foreign and Commonwealth Affairs under the chairmanship of Sir V. Duncan to review the functions and scale of the British representation effort overseas in the light of the current political and economic situation. This report referred to the role of the scientific counsellors, who are seconded to the diplomatic service under arrangements set up by the Department. No major alterations to the role and operations of the counsellors were recommended but the Review Committee considered that increasing emphasis should be given to the technological impact of their work.

44. During the year Dr. Michael Lock of the Royal Radar Establishment at Malvern was appointed Scientific Counsellor and Head of the United Kingdom Scientific Mission in Washington on the return to the country of Mr. R. J. Voysey.

SECTION VI

WALES AND MONMOUTHSHIRE

Introduction

1. This section deals with some specifically Welsh matters but should nevertheless be considered alongside the report as a whole. It begins by highlighting action taken on recommendations of the Gittins Report ; progress towards secondary reorganisation in Wales ; and important developments in the fields of further education and college government. The remaining paragraphs deal with the schools (including the Schools Council Committee for Wales), further and higher education, libraries and the work of the Welsh Joint Education Committee (W.J.E.C.).

a. SOME KEY DEVELOPMENTS

*Central Advisory Council for Education (Wales) Report**

2. In March a circular was issued to L.E.A.s in Wales, dealing with the recommendations in the Gittins Report on Welsh in the primary schools of Wales. This recalled that, in the course of a debate in Welsh Grand Committee in May 1968 the Secretary of State had already endorsed the principle of bilingual education in the schools of Wales advocated in the report. It invited L.E.A.s to review and publish their language policies in the light of recent developments. It asked that in making these reviews authorities should undertake an objective evaluation of the linguistic needs of their areas, neighbourhood by neighbourhood, taking into account the wishes of parents in each neighbourhood. It invited those authorities who do not already provide for the teaching of Welsh to review their policies in the light of the report. It also drew attention to what was said in the report about opting out for parents who do not wish their children to be taught Welsh. It expressed the hope that, where parents after full consideration preferred that their children should not learn Welsh, alternative arrangements would be made for example in the form of studies in Welsh history and culture.

3. The circular referred to the Secretary of State's decision, announced in May 1968, to make additions to the teacher quotas of Welsh authorities to enable them to meet their needs in respect of the Welsh language, and made it clear that further such requests would be considered on their merits.

4. The circular also invited L.E.A.s to consider sympathetically a number of other recommendations in the report concerning Welsh, such as that bilingual education should be continued into the first years of secondary education, and that experimental bilingual schools, i.e. English medium schools which progressively introduce Welsh, should be established in some areas.

* *Primary Education in Wales*, H.M.S.O., £1 12s. 6d. [£1·62½].

5. In December a second circular was issued to L.E.A.s in Wales, this time dealing with the report's recommendations on the reorganisation of primary education in rural areas where, as a result of social and educational changes, many schools are now too small to be viable educational units. The Secretary of State regarded the report as having made a convincing case for the special needs of rural areas in Wales and favoured reorganisation of primary provision in rural areas on the basis of area schools with three or more teachers. It invited L.E.A.s in Wales, where they had not already done so, to draw up long-term plans for the reorganisation of primary provision in their rural areas. It indicated that the Secretary of State, in considering building programmes for improvements for schools in Wales, would give specially favourable consideration to well-thought-out proposals for area schools where these formed part of a satisfactory plan for rural reorganisation in the area.

6. In the course of the year the Education Office for Wales had consultations with the W.J.E.C. and with the University of Wales with a view to securing agreement on machinery which would ensure effective implementation of the report's important recommendations on the in-service training of teachers in schools in Wales. At the end of the year arrangements were in hand for convening a conference for this purpose, sponsored jointly by the University and the W.J.E.C., at which the Schools Council Committee for Wales as well as the Education Office for Wales would be represented.

Secondary Reorganisation in Wales

7. Further substantial progress was made by L.E.A.s in Wales in submitting plans for secondary reorganisation for the approval of the Secretary of State. The Cardiff L.E.A.'s original plan for reorganisation of the city's secondary schools, based on a two-tier system with parental option at 13 plus, had been approved on an interim basis in the summer of 1965; it had not worked satisfactorily, and the L.E.A. submitted a revised plan for all-through comprehensive schools throughout the city, some for pupils aged 11 to 18 and others for pupils aged 11 to 16. This plan was approved in principle by the Secretary of State in August subject to the outcome of Section 13 procedure.

8. In Glamorgan a proposal for the Swansea Valley area of West Glamorgan was submitted and approved; this involved the establishment at Ystalyfera of a new bilingual secondary school for about 1,000 pupils aged 11 to 18 years who live in the western half of Glamorgan. The Denbighshire authority submitted and received approval in principle for a scheme of reorganisation for the town of Wrexham which provides for 11-16 comprehensive schools and a sixth form college. The Monmouthshire authority submitted and received approval in principle for their long-term proposals for Pontypool, Ebbw Vale, Sirhowy and the Western Valley, and for Roman Catholic schools in the county. Caernarvonshire submitted and received approval for their proposals for the Conway-Llandudno area, which was the only area in the county not yet organised on a comprehensive basis.

School at Aber-fan opened by the Prime Minister

9. On 20th June the Prime Minister, accompanied by the Secretary of State for Education and Science and the Secretary of State for Wales,

performed the official opening of the Ynysowen County Primary School, Aber-fan. This new school, the completion of which was referred to in last year's report*, replaced the Pant Glas Junior and Infants School which was destroyed in the disaster of October 1966.

Welsh National Agricultural College

10. In February the Department announced an allocation of £200,000, to be included in the further education starts programme for 1969-70, for the first instalment of a teaching block for the Welsh National Agricultural College, to be built on a campus site in Llanbadarn, Aberystwyth, which includes the College of Librarianship, Wales, and on which it is also proposed in due course to rehouse the activities of the Aberystwyth College of Further Education. The site includes agricultural land suitable for use as a teaching farm. The Agricultural College, which is being erected by the Cardiganshire L.E.A. as the agents of the W.J.E.C., will ultimately provide for 180-200 students, taking courses of a sandwich type in a range of agricultural subjects at Higher National Diploma and Ordinary National Diploma level, i.e. at a level between that at existing farm institutes and that at university departments of agriculture. The College will share hostel and communal accommodation with the College of Librarianship, Wales; allocations for instalments of these have also been included in further education starts programmes for 1969-70 and 1970-71. It is expected that the College will offer its first courses in 1971.

Welsh Polytechnic-designate, Treforest

11. The Draft scheme of Government of the Welsh Polytechnic-designate at Treforest was approved by the Secretary of State in July. It was expected that the Secretary of State would formally designate the college as the Welsh Polytechnic on or soon after 1st January 1970, following the constitution of the governing body and the appointment of a Principal.

Cardiff College of Music and Drama

12. Towards the end of the year agreement was reached between the Cardiff L.E.A., which is the maintaining authority of the Cardiff College of Music and Drama, and the W.J.E.C., on the constitution of a new governing body for the college, more broadly representative both of local education authorities in Wales and of bodies concerned with music and drama in Wales.

Government of Colleges of Education

13. Under the Education (No. 2) Act 1968, maintaining authorities of all maintained colleges of education in Wales, as in England, were required to make an instrument of government providing for the constitution of a governing body for each college of education which was not a sub-committee of the authority and also articles of government for the conduct of the college: all the schemes submitted were formally approved by the Secretary of State by the end of the year. The schemes reflected the recommendations made in the report of the *Study Group on the Government of Colleges of Education*† and the guidance issued earlier in the year by the local authority associations to their members about staff and student participation. During

* *Education and Science in 1968*, Section V, paragraph 2.

† H.M.S.O., 3s. 0d. [15p].

the year consideration was also given to the schemes of government submitted in respect of the two voluntary colleges of education in Wales: these also were approved and in operation before the end of the year.

14. In the case of the two jointly maintained colleges, Bangor Normal and the former College of Domestic Arts of South Wales and Monmouthshire, now renamed the Llandaff College of Education (Home Economics), decisions had to be taken concerning future arrangements for their maintenance since they could no longer be governed by the Joint Education Committees set up under earlier Orders. In both cases it was decided the colleges should continue to be jointly maintained by the existing authorities. New Orders were therefore made by the Secretary of State and new Joint Education Committees constituted to exercise the functions of local education authorities under the 1968 Act. The new Joint Committees were in both cases in operation before the end of the year.

15. At the end of the academic year 1968-69 the first group of students in colleges of education in Wales completed courses for the B.Ed. degree of the University of Wales. Forty-four out of the forty-six students attempting the course were successful.

Secretary for Welsh Education

16. The Secretary of State for Education and Science has appointed Mr. Leslie Jones, M.A., Director of Extra-Mural Studies at University College Cardiff, to be Secretary for Welsh Education from 1st January 1970, on the retirement of Dr. Elwyn Davies.

b. THE SCHOOLS

School Population

17. In January the number of pupils in maintained primary and secondary schools was 473,727 (464,066 in 1968). Of these 182,770 were in secondary schools (181,488 in 1968) and 290,948 in primary schools (282,578 in 1968). The primary schools figure included 26,072 children under 5 years of age (24,564 in 1968).

18. The four direct grant grammar schools in Wales had 1,693 pupils (1,733 in 1968), and the number of pupils in independent schools was 11,360 (11,877 in 1968).

Provision of New Schools

19. The major school building starts programme for Wales for 1969-70 was £6.3m. The programme included 20 primary school projects costing £1.3m. and 21 secondary school projects costing £5m. These will provide 4,485 primary and 10,555 secondary places. In addition £0.5m. was allocated for major and minor works in educational priority areas. This was to provide new buildings at 5 primary and 2 secondary schools. The total minor works allocations for 1969-70 was £2m. including a special winter allocation of £250,000 to assist development areas. Nursery provision for four L.E.A. areas in Wales at a cost of £83,475 was included in the second phase of the Urban Programme for deprived areas.

20. In accordance with the new procedure instituted in 1968, a design list and a preliminary list were announced to allow L.E.A.s to commence forward planning of school projects likely to start in 1971-72 and immediately following years.

21. Buildings for 15,895 new school places were taken into use during 1969. Work valued at approximately £6.42m. was started.

22. At the end of September major primary and secondary school projects to the value of £13.19m. were under construction. These would provide 7,905 primary and 17,790 secondary places.

Closure of Schools

23. Forty-eight schools in Wales and Monmouthshire were closed during 1969, of which 20 were county secondary and 11 county primary schools. The remaining 17 were voluntary schools, of which 15 were Church in Wales and 1 was Roman Catholic. Nineteen of the schools were closed because of low numbers, 7 on the opening of new schools and 22 as a result of reorganisation.

Secondary Reorganisation : Approvals under Section 13(4) of the Education Act 1944

24. During the year the Secretary of State approved under Section 13(4) of the Education Act 1944 reorganisation schemes which established the following comprehensive schools:

Caernarvonshire	...	...	Llandudno 11-18 mixed. Conway 11-16 mixed.
Glamorgan	...	...	Swansea Valley—Pontardawe 11-18 mixed. Ystalyfera Bilingual 11-18 mixed. Bryncellinog 11-18 mixed. Tonyrefail 11-18 mixed. Radys 11-18 mixed.
Monmouthshire	...	...	Abergavenny 11-18 mixed. Bassaleg 11-18 mixed. Bedwas 11-16 (11-18 ultimately mixed). Caerleon 11-16 mixed. Caldicot 11-18 mixed. Chepstow 11-18 mixed. Cwmbran, three 11-18 mixed.
Pembrokeshire	...	...	Pembroke/Pembroke Dock 11-18 mixed.
Merthyr Tydfil	...	...	Two 11-18 mixed.
Swansea	...	...	Cwmrhydyceirw 11-18 mixed.

Supply of Teachers

25. In January there were 21,327 full-time teachers in maintained schools, excluding nursery and special schools (20,427 in 1968). The number of teachers fixed by quota for authorities in Wales for 1970-71 was 22,128 (20,985 for 1969-70). The average number of pupils per full-time teacher was 22.2 (22.7 in 1968).

Voluntary Schools

26. There were 165 aided and 217 controlled voluntary schools in existence at the end of the year. Maintenance contributions under Section 102 of the Education Act 1944 amounted to £366,834 5s. 5d. Instalments of grant towards cost of transferred schools totalled £95,360 2s. 1d. Instalments of grant in respect of schools for displaced pupils totalled £38,998 6s. 10d. Grants of £9,008 4s. 0d. were paid under Section 1(2) of the Education Act 1959 towards the cost of aided secondary school provision to match primary provision. Grants of £160,455 6s. 5d. were paid under Section 1(2) and (4) of the Education Act 1967 towards the cost of providing new schools, including substituted schools and enlarging existing ones.

27. Roman Catholic voluntary schools received £531,174 14s. 3d. and Church in Wales schools £139,431 10s. 7d.

Independent Schools

28. No fresh applications for registration under the provisions of Part III of the Education Act 1944 were received, four registered schools closed and two schools recognised as efficient under Rules 16 closed. At the end of December there were 30 schools finally registered, 1 provisionally registered and 52 independent schools recognised as efficient under Rules 16. One registered school became recognised as efficient. Six independent boarding schools in Wales were inspected under the Department's special review of unrecognised schools. One of these has been recognised as efficient (and is included in the above figures).

Provision for Handicapped Pupils

29. A proposal to extend the Ysgol Gogarth, a school for physically handicapped pupils at Llandudno, was included in the major building programme for 1970-71. The extensions will provide 40 additional places intended to meet the needs of the increasing number of children handicapped by *spina bifida*, especially the youngest age groups.

30. In view of the high incidence rates of *spina bifida* in South Wales, the W.J.E.C. made a survey of the need for new residential accommodation in South Wales for physically handicapped children, and after consultations with the South Wales authorities submitted a proposal for a new residential school in Cardiff. This proposal was under consideration at the end of the year.

31. A survey of all aspects of provision for special education in West Wales was undertaken by H.M. Inspectors and Medical Officers of the Department and was completed in the early summer. At the end of the year a similar survey of provision in Monmouthshire was being undertaken.

O. and M. Group Activity

32. Some six years ago H.M.I. in North Wales formed a team to investigate the organisational problems of small bilateral schools. What came out of this project far exceeded its original purpose. The curricular analysis involved led to the discovery of laws which govern not only the bilateral but all other types of school curricula: and this in turn made it possible to devise a curriculum notation the use of which, especially since its publication in March, is by no means confined to Wales.

33. The practical value of the notation is shown by the fact that more applicants had to be turned away than could be accepted at two O. and M. courses held by the Department for Headmasters and others at Llandrindod Wells in May and October. Those accepted at these courses were drawn from Northern Ireland and the Channel Islands as well as from England and Wales. Also a number of universities, one of them in Scotland, have now adopted the notation as a basis for in-service courses, and for courses leading to M.Ed.

34. The notation's practical worth to headmasters has to do with the fact that the school time-table has more spaces in it to be filled up than the school register has altogether of pupils. There is a critical size of school beyond which the practice of using the time-table as the medium for "thinking out" the curriculum becomes inadequate. What the notation initially does for the headmaster, of a school of whatever size, is to provide him with some 20–30 *bonus classes*, that he can use to do curriculum "sketching". Then after adding these to the *basic classes*, the notation enables him by a careful sequence of decisions to assemble the classes of the school into groups that discharge the several functions of pastoral, social and instructional. As an aid to clear thinking the notation speaks to the headmaster's condition, in these days when schools are becoming much larger and their structure much more complex.

Drama in Schools and Colleges in Wales

35. A survey was recently made, at the request of the Minister of State for the Arts, of the place of drama in schools, colleges and further education in Wales. The survey, which has not yet been published, was made in association with the W.J.E.C., and analysed what was happening in six main areas of activity—the role of specialist teachers of speech and drama, facilities for drama in schools, the functions of drama advisers, visits by professional companies, amateur drama and courses provided in colleges and university departments of education. It outlined good practice in a variety of fields, notably with young people and in primary schools, and emphasised the integrating force of drama in primary school activity and its place in modern individual and group teaching methods. It served to show the marked advances that have been made in drama since the publication of the Central Advisory Council for Education (Wales) Report *Drama in the Schools of Wales** in the early fifties.

The Schools Council Committee for Wales

36. During the year the Welsh Committee of the Schools Council, now re-named the Schools Council Committee for Wales, held three meetings. In accordance with the revised constitution of the Council, the Welsh and Welsh Studies Committee was replaced by two sub-committees of the Committees for Wales: the Welsh Language Sub-Committee which acts as a subject committee and the Welsh Studies Sub-Committee which is concerned with particular aspects of the curriculum in the schools of Wales.

* H.M.S.O.—*Out of print.*

37. In July a conference of directors of the Council's projects in Wales was held at the City of Cardiff College of Education to discuss the progress of their research and development work, and to establish links between the various projects.

38. In June the Committee published (in Welsh) *Y Gymraeg Mewn Addysg: Wynebu'r Dyfodol* (Welsh in Education: Facing the Future)* a report of the national conference held in 1968 to discuss the Committee's earlier publication, *Welsh—A Programme of Research and Development*.† In September, the second in the series of *Science Bulletins*‡ was published. Both publications were distributed free to schools in Wales. Two further publications will appear shortly, *Fesul Deg*, a second pamphlet of guidance to teachers on decimalisation and metrication (in Welsh), and *Aspects of Primary Education: The Challenge of Gittins*, an account of the national conference held in 1968 to discuss the report of the Central Advisory Council for Education (Wales), *Primary Education in Wales*.

39. During the year, two new research and development projects were started: science and mathematics in Welsh-medium schools, at the University College of Wales, Aberystwyth and teaching materials for Welsh as a first language at secondary level, at the University College of North Wales, Bangor.

C. FURTHER EDUCATION

Building Programme

40. In the spring details were announced of the 1969–70 further education design list (that is, projects on which the building work was expected to start in the year beginning in April 1970): this list included Welsh projects to a total value of £1.7m. At the same time, details were announced of the preliminary list (that is, projects not intended to start before 1st April 1971); the total for Welsh projects in that list amounted to nearly £1.4m.

41. At the end of October the 1970–71 further education starts programme including Welsh projects totalling over £1.6m., was announced. Among the projects were a further hostel and another instalment of teaching accommodation for the Llanbadarn campus site near Aberystwyth (£270,000), a studio theatre for the Cardiff College of Music and Drama (£85,000) and extensions, including a library and business studies department, at the Glamorgan College of Technology, Treforest (£340,000). Also in October the 1970–71 design list (based on the existing preliminary list) was announced. This included Welsh projects totalling over £1.35m. Amongst these were further instalments for the Llanbadarn campus site (£320,000), the first instalment of a new building for the Cardiff College of Music and Drama (£200,000), further extensions, hostel and playing field provision for the Glamorgan College of Technology (£218,000) and extensions to the teachers' centre at The Hill, Abergavenny (£111,000).

* Free from the Schools Council Committee for Wales, 31 Cathedral Road, Cardiff CF1 9UJ.

† H.M.S.O., 8s. 6d. [42½p].

‡ Free from the Schools Council Committee for Wales.

Industrial Training

42. The integrated course (24 weeks) for the Road Transport Industry Training Board was initiated in the autumn 1969 session and had 122 students spread over 9 centres in Wales. The number of students on other first-year integrated courses in the 1969-70 session were as follows:—

<i>Training Board</i>				<i>Number of Students</i>
Engineering Industry	...	...	...	539
Electrical Supply (S.W.E.B.)	...	...	...	31
Construction Industry	...	...	...	143
Shipbuilding Industry	...	...	...	17

Adult Education

43. Grants amounting to £137,000 for the academic session 1968-69 (compared with £119,277 for 1967-68) were made to the 7 responsible bodies providing courses of liberal adult education in Wales. The grants allowed for a moderate increase in the volume of part-time work and also additional full-time tutor posts for the University College of Wales, Aberystwyth, and the University College of South Wales and Monmouthshire, Cardiff. The number of students attending courses was 26,774 in 1968-69, compared with 25,853 in 1967-68.

44. During the year the new hostel at Coleg Harlech was completed and occupied. Owing to difficulties arising out of the fire damage to the Great Hall, which formed part of the existing building, it was necessary to postpone the remaining work of the development project, i.e. adaptations to the existing building, until the summer of 1970. The Great Hall is not being replaced as such but by a more functional building that will serve Coleg Harlech better and also the community as a whole. A Development Campaign was launched to meet the demand for funds. The response by the end of the year was very satisfactory.

45. During the year there was an extension of the experiment known as University Week. This aims to bring the University to the people by offering a choice of two or three lectures by university staff each evening for a week at three or four centres. This was pioneered in Bangor and is now being developed in Swansea. There was also during the year a marked increase in demand for courses in religious education, no doubt as a result of new thinking and fresh approaches on this subject.

Adult Welfare

46. During the part of the year prior to the transfer of responsibility for sport, 29 offers of grant amounting to £77,783 were made under the Physical Training and Recreation Act 1937 towards the cost of playing fields and other sports projects. Offers of grant amounting to £4,560 were made to Welsh national voluntary organisations. 12 offers of grant amounting to £34,476 were made under the Further Education Regulations, 1969, towards the cost of community centres and village halls.

Youth Service in Wales

47. The Youth Service Building Programme for 1970-71 amounted to £273,000 and included 13 local education authority proposals for general youth clubs and one for voluntary youth clubs.

48. During the year 27 offers of grant totalling £39,095 were made under the Further Education Regulations, 1969, towards the provision of premises and equipment for youth clubs provided by voluntary organisations. Offers of grant totalling £30,060 were made to Welsh national voluntary youth organisations towards the cost of headquarters and administrative expenses.

d. TRAINING OF TEACHERS

49. Major building projects totalling £300,000 were approved for the replacement and improvement of facilities at a number of the colleges of education in Wales. Some of these were for the 1969–70 design list and others for the preliminary list. Among the projects approved were new libraries at Caerleon and Swansea College of Education and the further replacement of hatted accommodation at Cartrefle College of Education. Projects for some of the other colleges were still under consideration at the end of the year.

50. In the 1968–69 session total student numbers in the nine Welsh colleges amounted to over 6,200, an increase of just over 3 per cent on the total for 1967–68.

51. The nine colleges presented a total of 1,983 candidates for first examination by the University of Wales School of Education in the summer of 1969 and of these 1,903 (95·9 per cent) qualified for the Certificate in Education. The comparable figures for 1968 were 1,799 presented, 1,731 (96·22 per cent) qualified. Seventy ex-students who had failed to qualify in previous years were re-examined in one or more subjects and 48 succeeded in completing the requirements for the Certificate. In addition, 45 candidates qualified for the Art Teacher's Certificate.

52. There were 371 candidates for the Certificate of Proficiency in Bilingual Teaching, of whom 342 were successful; 46 receiving form one of the Certificate, for proficiency in teaching Welsh and English as second languages, 5 receiving form two of the Certificate, for proficiency in teaching through the medium of Welsh, the majority—291 in all—receiving form three of the Certificate, having shown proficiency both in teaching Welsh and English as second languages and in teaching through the medium of Welsh.

53. In addition to the 44 students who completed their B.Ed. courses at the end of the session there were 128 candidates for Part I, and of these 83 achieved the standard to proceed to Part II.

54. Three supplementary courses were provided during the 1968–69 session. These were attended by 57 students; 14 for art and crafts and 43 for teaching handicapped pupils.

55. During the 1968–69 session the Collegiate Faculties of Education organised 147 refresher courses, lectures and conferences for serving teachers and others (138 in 1967–68).

56. The Standing Committee of the University of Wales Faculty of Education continued its detailed work on the reorganisation of the Certificate in Education and referred an outline plan of a revised structure for the course to colleges of education and the Collegiate Faculties for their comments. A Working Party has been collating the replies from these sources with a view to drafting a manual of guidance to control any experiments with the 1970 student intake.

57. Another Working Party spent some time concerning itself with the question of provision for serving teachers to study for the degree of B.Ed. It was hoped that a scheme would be ready for operation by October 1970.

58. The Department approved a proposal, drawn up jointly by the University College, Cardiff, the University of Wales Institute of Science and Technology and the W.J.E.C., for the provision of training for teachers engaged in or proposing to engage in the teaching of technical subjects. This would take the form of a sandwich course leading to a postgraduate certificate in technical education. The course would extend over two years including two block periods, each of eight weeks' duration, during the summer months, followed by teaching practice and tutorial instruction.

Short Courses Organised by H.M. Inspectorate in Wales

59. There was an expansion of the programme of short courses organised by H.M. Inspectors in Wales, to meet the growing demand for in-service training of teachers. During the year ten short courses were held, and about 400 teachers attended. The courses were concerned both with school organisation and with aspects of the curriculum. Two courses were held for heads and senior staff on the organisation and management of secondary schools. Other courses included creative aspects of musical education with opportunities for practical work ; special education ; programmes for the young school leaver with particular reference to the raising of the school leaving age ; courses for teachers of science ; and courses for teachers of Welsh and Welsh studies.

60. Of particular interest was a course held at University College, Cardiff, in the summer for teachers of chemistry. This was one of a new series of courses organised in conjunction with university science departments and departments of education with the object of familiarising teachers with new approaches to the teaching of science and new aspects of science examination syllabuses. These courses last six weeks, partly in term-time and partly in school vacation time. The Cardiff course was in keen demand and was attended by 29 teachers.

61. Another course of special interest was one organised at Jesus College, Oxford on Welsh prose tradition, designed to familiarise teachers of Welsh in secondary schools and colleges with recent advances in Welsh scholarship.

e. LIBRARIES

Library Advisory Council (Wales)

62. The Council welcomed the publication in June of the Report of the National Libraries Committee* and submitted a Memorandum to the Department setting out their views. In particular the Council was concerned that the policy activities of the proposed Management Board should be subject to some degree of Ministerial control, and that the Heads of the various component institutions should have a voice in the general policy of the proposed National Libraries Authority.

63. Other matters considered by the Council included the question of Public Lending Right, the supply of Welsh books to Welsh readers in England, the possibility of improving the facilities for reviewing Welsh children's books,

* Cmnd. 4028, H.M.S.O., £1 8s. 0d. [£1.40].

and the library and information needs of Welsh industry. Recent developments in regional library co-operation were also considered and in particular the organisation and maintenance of union catalogues at Aberystwyth and Cardiff and the associated inter-lending procedures. The Council also supported a request by the English Council that the Department should make a detailed study of regional library co-operation in general.

64. Members of the Council continued to play an active part on Joint Committees with the English Council and on the Council's own working parties. The Council's Working Party on Bibliography continued its task of identifying the needs of Welsh Bibliography and the Working Party on Standards considered the provision that should be made to assist the publication of Welsh books after 1970-71, when the present level of Treasury grant of £7,500 per annum is due to be reviewed.

Public Library Authorities

65. Statistics collected jointly by the Institute of Municipal Treasurers and Accountants and the Society of County Treasurers show that the total net expenditure on public libraries in Wales was £1.86m. in 1968-69 compared with £1.77m. in 1967-68, an increase of 5.1 per cent. The total number of posts for professional librarians decreased from 253 to 252.

66. Loan sanctions to the value of £187,680 were issued in the financial year 1968-69, authorising capital to be provided for new branch libraries and for improvements to existing library buildings. New county library headquarters were completed for Breconshire (at Brecon) and for Flintshire (at Mold). The Breconshire headquarters was opened by His Royal Highness Prince Charles shortly after his Investiture as Prince of Wales.

67. Visits were paid by one of the Department's Library Advisers, in conjunction with Welsh language specialists of H.M. Inspectorate, to the Merthyr Tydfil Public Library and the Anglesey County Library and reports on the services provided were sent to the authorities concerned.

f. WELSH JOINT EDUCATION COMMITTEE (Y CYD-BWYLLGOR ADDYSG CYMREIG)

68. In association with the Department the Welsh Joint Committee organised four one-day conferences for teachers in establishments of further education on the philosophy and structure of existing and proposed schemes of study and on the new approach to the treatment of subjects included in the schemes. One of these courses was for teachers in agricultural education. The Committee organised four short residential courses; three for teachers in technical colleges and one for organisers, teachers and students concerned with agricultural and horticultural education. As an experiment the Committee arranged a post-examination meeting of teachers, moderators and examiners to consider question papers and results in the Committee's examinations for part-time students in establishments of further education. This meeting was an outstanding success.

SECTION VII

FINANCE AND GENERAL

Introduction

1. Matters common to the whole education service are brought together in this final section. It begins with a survey of public expenditure on education, developments in respect of teachers' salaries and superannuation, student support and educational building. This is followed by notes on educational research and technology, highly qualified manpower, statistics, automatic data processing, and the Department's library and information services. The section concludes with a review of educational and cultural contacts in the international field.

1. Finance

a. PUBLIC EXPENDITURE

2. In 1968-69 public expenditure on education in Great Britain was £2,164m., compared with £785m. ten years earlier. The main items were as follows:—

TABLE 19.—*Summary of public authorities' education expenditure*

	£ million		
	Current	Capital	Total
<i>England and Wales</i>			
Local education authorities	1,422·5(i)	213·2(ii)	1,635·7
Department of Education and Science	42·7	22·8	65·5
<i>Scotland</i>			
Education Authorities	154·1(i)	37·8(ii)	191·9
Education Department	26·0	4·1	30·1
<i>University Grants Committee</i>			
In England and Wales	139·4	65·8	205·2
In Scotland	23·5	12·3	35·8
<i>Total</i>			
England and Wales	1,604·6	301·8	1,906·4
Scotland	203·6	54·2	257·8
Total Great Britain	1,808·2	356·0	2,164·2

(i) Including loan charges of £150·0m. in England and Wales and £20·2m. in Scotland.
(ii) From revenue and loans.

The above figures exclude expenditure of £114·2m. (£102·0m. current and £12·2m. capital) on school meals and milk in Great Britain.

3. December saw the publication of the first of a new series of annual White Papers* setting out public expenditure plans for 1969-70—1971-72 and giving provisional figures for the years 1972-73 and 1973-74. The

* *Public Expenditure 1968-69 to 1973-74*, Cmnd. 4234, H.M.S.O., 8s. 6d. [42½p].

expenditure figures reflected the Government's policy that public expenditure should expand broadly in line with the forecast growth of the economy as a whole.

4. The White Paper showed that capital and current expenditure in Great Britain on education (including universities and school meals and milk) and on local libraries was expected to increase from £2,232m. in 1968–69 to £2,499m. in 1971–72 on the price basis used in the Public Expenditure Survey in 1969. This planned increase should provide for some improvement in standards over and above the demands attributable to growing numbers of pupils in schools and students in further and higher education. Allowance is made for the higher charge for school meals—see Section I paragraph 84. The provisional totals for 1972–73 and 1973–74 were £2,550m. and £2,600m., respectively. Within the totals for 1968–69 and 1971–72 the expenditure of local authorities was expected to increase from £1,885m. to £2,108m.

The Department's Votes

5. Table 20 shows the expenditure and receipts for all the educational votes for which the Department has accounting responsibility.

TABLE 20.—*Expenditure and Receipts on the Department's Votes*

Expenditure	£ million		Remarks
	1968–69 (gross)	1969–70 (gross estimate)	
1. Administration	8.2	9.0	Includes loans to voluntary schools.
2. Grants to LEAs	1.5	0.3	
3. Grants to other bodies ...	58.0	59.0	
4. University Awards	1.0	1.2	
5. Universities and Colleges ...	242.9	255.6	
6. Teachers' Superannuation...	71.2	80.4	
	382.8	405.5	
7. Receipts	97.7	99.6	Mainly superannuation contributions from teachers and their employers.

Under The Transfer of Functions (Physical Training and Recreation) Order 1969, the functions of the Secretary of State for Education and Science under the Physical Training and Recreation Act 1937 were transferred to the Minister of Housing and Local Government as from 23rd October 1969. The 1969–70 estimate provision for grants to other bodies included in the above table covers only the period 1st April–22nd October 1969 in respect of grants made under the Act and other grants for sport.

Expenditure by Local Education Authorities

6. The current expenditure of L.E.A.s on education services in England and Wales in the financial year 1968–69, excluding expenditure on school meals and milk but including £19.0m. capital expenditure from revenue, increased to £1,441m. compared with £1,332m. in 1967–68. This increase of £109m. (8 per cent) was due in part to rises in costs—principally an increase in the rates of awards to students, salary and wage increases for local authorities' administrative, professional and manual staffs and increases in the costs of supplies and equipment—but mainly reflected increased demand for an expansion of the service. The largest increases occurred in the cost of maintenance allowances payable to children staying on at school beyond the compulsory school age (43 per cent), in the training of teachers (13 per cent), in the provision of special education (10 per cent) and in further education, including awards to students (10 per cent). The cost of the provision of primary and secondary education rose by 6 per cent. An increase of nearly 14 per cent in loan charges reflected continued progress with the provision of new or improved buildings and equipment.

7. This local authority expenditure was assisted by the Exchequer through the rate support grants paid by the Ministry of Housing and Local Government under the Local Government Act 1966. The rate support grants for 1968–69 were based on estimates of local authority expenditure which included £1,517m. for education, including school meals and milk, after allowing for increases in pay and prices up to the autumn of 1967. In January 1968 the Government made it clear that local authorities would be expected to absorb any further unavoidable increase in costs by making savings elsewhere.*

8. The 1968 report† mentioned that in autumn 1968 the totals of rate support grants were fixed at £1,528m. and £1,633m. for 1969–70 and 1970–71, respectively. In determining the grants the Government took account of estimated expenditure of £1,613m. and £1,677m. on the education service, including school meals and milk. Following negotiations with the local authorities in the autumn of 1969 the totals of rate support grant were increased to £1,612m. and £1,744m. to take account of increases in pay and prices. The major change for the education service was an increase in teaching staff salaries from 1st April 1969. The revised figures taken into account for education, including school meals and milk, were £1,700m. and £1,780m. for 1969–70 and 1970–71, respectively.

Inter-Authority Payments

9. Under the chairmanship of the Department's Accountant General, the Local Education Authorities Committee on Inter-Authority Payments‡ advises on recoupment and recommends the rates to be used for inter-authority adjustments. Tables 21 and 22 show the rates which were recommended for 1969–70 and previous years.

* See *Public Expenditure in 1968–69 and 1969–70*, Cmnd. 3151, H.M.S.O., 1s. 9d. [9p].

† *Education and Science in 1968*, Section VI, paragraph 7.

‡ Acting under Section 6 of the Education (Miscellaneous Provisions) Act 1948, for primary and secondary education, and under Section 7 of the Education (Miscellaneous Provisions) Act 1953, for further education.

TABLE 21.—*Tuition Costs Per Pupil*

(For adjustments in respect of primary and secondary school pupils living in one area and educated in another)

	Financial Year			
	1966-67	1967-68	1968-69	1969-70
	£	£	£	£
Primary pupil	83	89	94	98
Secondary pupil aged under 16	150	164	176	177
Secondary pupil aged 16 or over	260	289	283	285

TABLE 22.—*Tuition Costs per Student Hour*

(For recoupment payments for further education)

	Academic year			
	1966-67	1967-68	1968-69	1969-70
<i>Colleges of Further Education</i>				
School level work	5s. 4d.	5s. 7d.	—	—
Intermediate level work	7s. 0d.	7s. 4d.	—	—
Advanced level work	13s. 0d.	13s. 6d.	—	—
C level work (i)	—	—	7s. 0d.	7s. 4d.
B level work (i)	—	—	8s. 1d.	8s. 7d.
A2 level work (i)	—	—	11s. 0d.	11s. 8d.
<i>Agricultural Institutes</i>	£439 per year or 6s. 11d.	£462 per year or 7s. 3d.	£547 per year or 8s. 1d.	£564 per year or 8s. 4d.

(i) As defined in Appendix VI, Part A, paragraph 3 of the 1967 *Report of the Burnham Committee on Scales of Salaries of Further Education Teachers*, H.M.S.O.—Out of Print.

Pooling of Educational Expenditure

10. At the suggestion of the local authority associations, a Pooling Committee comprising representatives of the County Council Association, the Association of Municipal Corporations, the Association of Educational Committees, the Welsh Joint Education Committee and the Inner London Education Authority was established in May 1968 under the Chairmanship of the Department's Accountant General with the following terms of reference:—

To consider and keep under review the arrangements for pooling educational expenditure with particular reference to teacher training and advanced further education, and to make recommendations to the Secretary of State or to the local authority associations, as may be appropriate.

Paragraphs 82 and 83 of Section II of this report describe the Committee's work in connection with the teacher training pool. The Committee also put in hand preliminary investigations into comparable measures in connection with the advanced further education pool.

Cost Investigation Unit

11. A considerable amount of preliminary work was undertaken during the year in connection with the planning and launching of the cost-effectiveness study into the provision of education for students in the 16-19 age group in the areas of a few local education authorities. This exercise is being carried out by the Department in co-operation with selected local education authorities, and the secondary schools and further education establishments in their areas. A small steering committee under the chairmanship of Sir Lionel Russell generally directs and supervises the study. The objectives of this study which is essentially of a pilot or exploratory nature are, firstly, to examine the costs and effectiveness of a small number of different organisational patterns of educational provision for students in this age group; and, secondly, to explore the methodology of and problems associated with the application of cost-effectiveness techniques to education services. Valuable and full discussions took place with officers and teachers in the areas and establishments likely to be involved and, towards the end of the year, the collection of the detailed information necessary to carry out the project was commenced.

12. The unit was also employed in collecting and examining details of the costs incurred in providing advanced further education in technical colleges and comparable establishments maintained by local education authorities in order to provide the Pooling Committee, to which reference is made in paragraph 10 above, with information and statistics relevant to its activities. This initial survey indicated a need for a more detailed and precise examination of certain areas of expenditure and costs: this work is now being developed.

13. On behalf of the Local Education Authorities' Committee on Inter-Authority Payments, the unit undertook a full examination of costs in agricultural institutes. The Committee later decided that the complete tabulations and statistics prepared during the course of this exercise should be sent to the local education authorities maintaining these institutes for their information.

14. The unit also undertook a number of ad hoc enquiries in response to requests received from various schools and establishments for advice on organisational and administrative problems concerned with improving efficiency and obtaining greater value for money.

b. TEACHERS' SALARIES AND SUPERANNUATION

Primary and Secondary Schools

15. The negotiations recorded in the 1968 report* continued. The Burnham Primary and Secondary Committee reached provisional agreement in January (which was ratified in March) on the management panel's offer of an increase of 7.1 per cent to operate from 1st April 1969 until 31st March 1971 at an estimated additional annual cost of £33m. The agreement provided for general increases at $6\frac{1}{8}$ per cent overall, the ceiling permitted under incomes policy, together with restructuring changes in the unit total system

* *Education and Science in 1968*, Section VI, paragraph 13.

to improve responsibility payments, mainly to teachers in primary schools which went far to achieve the teachers' panel's objective of removing the so-called primary/secondary differential. The Committee also accepted the management panel's proposals for closer definition and improvement of the conditions for safeguarding salary on reorganisation of schools. The Committee agreed that a working party should consider, among other matters changes in the unit total system for special schools. The resulting salaries document* was given statutory effect by the Remuneration of Teachers (Primary and Secondary Schools) Order 1969† made in April.

16. A fresh round of negotiations began in October when the teachers' panel tabled a claim for an interim mid-term increase of £135 per annum for all teachers from 1st April 1970. The committee met again on 10th November and 15th December, when the teachers' panel rejected successive offers from the management panel. On 5th January 1970, the management panel made a further improved offer without prejudice. This was also rejected by the teachers' panel and subsequently withdrawn by the management. The management panel then asked that the matter be referred to arbitration. The Chairman ruled that there had been full opportunity for discussion and negotiation and said that he would accordingly invite the Secretary of State for Employment and Productivity to set up an arbitral body. The teachers' panel stated that they would take no part in arbitration.

17. There were one- and half-day teachers' strikes in many areas during November. On 1st December members of the two biggest teachers' unions started fortnight strikes at selected schools.

18. In July the government appointed a Committee of Inquiry, under the Chairmanship of Dr. W. E. J. McCarthy, to inquire into the causes and circumstances of the dispute between the Durham local education authority and the National Association of Schoolmasters. The dispute originated in the Association's decision in January to take protest action (which it described as working to rule or working to contract) in certain schools in 15 areas to draw attention to grievances over teachers' pay. In 14 of the areas the protest action was not prolonged but in Durham the dispute was protracted over a second question which emerged, that of payment or otherwise of salary to Association members for the period during which they were excluded by the authority from school on the grounds that they had by their protest action terminated their contract of service.

19. In its report‡ the Committee said that it did not consider it necessary, under the terms of reference, to comment on the issues which had prompted the original protest action. On the course of events in the dispute it made a number of criticisms of the action taken by both the local education authority and the Association. It recommended that the authority should resolve the dispute by agreeing to reinstate the teachers concerned with full pay. In addition it made recommendations about future relations between the authority and the Association, and about the national model teachers' conditions of service agreement.

* *Scales of salaries for Teachers in Primary and Secondary Schools, England and Wales, 1969*, H.M.S.O., 7s. 0d. [35p].

† S.I. 1969, No. 618, H.M.S.O., 6d. [2½p].

‡ Cmnd. 4152, H.M.S.O., 4s. 0d. [20p].

20. The parties re-opened negotiations on the basis of the report and reached agreement to resume normal working.

Further education.

21. At a meeting of the Burham Further Education Committee in March, the teachers' panel presented proposals for new salary scales to take effect from 1st April 1969, together with details of a variety of matters which were giving them cause for concern about the operation of the 1967 settlement. At a second meeting agreement was reached on certain changes in the staffing and salary structure, but the meeting was adjourned to enable the two sides to consider the remaining proposals and submissions.

22. In April the teachers' panel rejected the management's offer but indicated that, without wishing to prejudice their case, they were prepared, in the interests of obtaining a settlement, to restrict their claim to securing improvements in the assistant lecturer and lecturer grade I scales. The management made a further offer to create an additional incremental point at the top of the scale for non-graduate lecturers grade I, but no agreement was reached and the meeting was adjourned.

23. In May, the Committee were informed that the teachers' panel had rejected the management's final offer. It was accordingly agreed that the scales and allowances for all grades of teacher in further education establishments, and the maximum permissible proportion of assistant lecturer posts to be established in a college, should be referred to arbitration. The arbitral body's award, operative for two years from 1st April 1969, was received at the end of August. Apart from a recommendation to combine the maxima of the group I and group II scale for lecturers grade I, it was in the terms of the management panel's final offer. It represented an increase of about 6·4 per cent from 1st July 1967 at an annual cost of about £5·7m. With minor modifications agreed by the Committee, the award and the new salaries document* were given effect by the Remuneration of Teachers (Further Education) Order 1969.†

Farm institutes

24. Agreement was reached in November in the Burnham Farm Institutes Committee on increases to operate from 1st April 1969 to 31st March 1971. These were set out in a salaries document,‡ given effect by the Remuneration of Teachers (Farm Institutes) Order 1969.§

Colleges of education

25. In April, the teachers' panel of the Pelham Committee submitted a claim for revised salary scales at an estimated annual cost of £2·4m., or about 10·7 per cent. When the Committee met again in May, the teachers' panel were unable to accept the final offer tabled by the authorities' and governors' panel. It was agreed to invoke arbitration under section 2(2)(c) of the Industrial Courts Act 1919. The Secretary of State for Employment and

* *Scales of salaries for Teachers in Establishments for Further Education, England and Wales, 1969*, H.M.S.O., 7s. 0d. [35p].

† S.I. 1969, No. 1713, H.M.S.O., 6d. [2½p].

‡ *Scales of salaries for the Teaching Staff of Farm Institutes and for Teachers of Agricultural (including Horticultural) Subjects, England and Wales, 1969*, H.M.S.O., 6s. 0d. [30p].

§ S.I. 1969, No. 1780, H.M.S.O., 6d. [2½p].

Productivity constituted a board of arbitration which issued an award in the terms of the final offer made by the authorities' and governors' panel, at an estimated annual cost of £1.3m., or about 6 per cent. The Committee agreed a report* to implement the award and the revised salary scales, which were approved by the Secretary of State at the end of October.

Teachers' Superannuation Regulations

26. In January the Secretary of State made the Teachers' Superannuation (Amendment) Regulations† under which the additional payments to teachers in schools of exceptional difficulty described in the 1968 report‡ and disregarded for superannuation purposes.

Actuarial Valuation 1961-66

27. The 1968 report§ described the changed financial basis of the teachers' superannuation scheme in England and Wales laid down in the Teachers' Superannuation Account (Rates of Interests) Regulations 1968||. The Government Actuary's inquiry into the financial position of the scheme at 31st March 1966 was conducted on the revised basis. His report¶, published in February, disclosed a valuation deficiency of £345.4m. mainly due to a rise of nearly 50 per cent in the level of teachers' salaries during the period. The Government Actuary certified in accordance with the provisions of section 5 of the Teachers' Superannuation Act 1967** that the deficiency could be made good at the expiration of a period of 40 years from 1st April 1969 by the continued payment by employers of supplementary contributions of 2½ per cent of salaries, begun on 1st April 1966 in accordance with the previous valuation report. If the financial basis of the scheme had not been changed, the deficiency would have been £464.7m., requiring the rate of supplementary contributions to be increased to 4 per cent.

Family Benefits Scheme

28. Membership of the teachers' widows' and children's pension scheme became compulsory for all male teachers entering full-time pensionable service for the first time after 31st March 1969, the end of the three-year introductory period recommended by the working party which devised the scheme.

Part-time teachers

29. The working party set up in 1965 on superannuation arrangements for part-time teachers†† concluded that in the education service outside the primary and secondary field any arrangements for part-time teachers would

* *Scales of salaries for the Teaching Staff of Colleges of Education, 1969*, H.M.S.O., 3s. 0d. [15p].

† S.I. 1969, No. 80, H.M.S.O., 6d. [2½p].

‡ *Education and Science in 1968*, Section VI, paragraph 11.

§ *Education and Science in 1968*, Section VI, paragraph 20.

|| S.I. 1968, No. 1944, H.M.S.O., 1s. 0d. [5p].

¶ *Report by the Government Actuary on the Teachers Superannuation Scheme (England and Wales) 1961-1966*, H.M.S.O., 2s. 3d. [11p].

** 1967, Ch. 12, H.M.S.O., 1s. 9d. [9p].

†† See *Education and Science in 1968*, Section VI, paragraph 23.

appear to involve a radical departure from the existing system and that further consideration should be deferred until the realignment of teachers' superannuation in the light of the new national superannuation scheme had been studied (see paragraph 31). The working party recommended, however, that the existing arrangements should be extended to the part-time teaching staff of colleges of education on the same voluntary basis and subject to the same conditions and exceptions as already apply to those in primary and secondary schools. The 1967 Regulations were amended* to provide for this extension with effect from 1st February 1970.

Pensions increase

30. The Pensions (Increase) Act 1969†, which came into operation on 1st April, provided for increases of between 2 and 18 per cent in the pensions of teachers (and others in the public service) which began before 1st July 1967. The Act followed closely the pattern of earlier pensions increase legislation, but for the first time it enabled regulations to be made (the Increase of Pensions (Teachers' Family Benefits) Regulations‡) to provide increases in the pensions of certain teachers' widows.

National superannuation

31. In January a White Paper§ announced the government's plans for a scheme of national superannuation, planned to be introduced in April 1972. In April the Department sent to the associations concerned consultative documents setting out the main features of the scheme and preliminary comments on the adjustments which might prove necessary to teachers' and other public service superannuation. The arrangements for partial contracting out are an important aspect of the new scheme. The government's proposals on these were contained in a White Paper|| published in November. By the end of the year preliminary and informal exchanges had taken place with the associations representing teachers and employers.

C. STUDENT SUPPORT

Overall Numbers

32. The number of awards made from all public sources—L.E.A.s, the research councils and government departments—continued to increase in 1967–68. For first degree, comparable and lower level courses of further education in Great Britain the number rose from 334,460 in the previous academic year to 373,775 while the cost increased from £106·4m. to £120·9m. The provisional corresponding figures for 1968–69 were 402,800 and £139·9m. respectively.

* S.I. 1970, No. 10, H.M.S.O., 6d. [2½p].

† 1969, Ch. 7, H.M.S.O., 2s. 0d. [10p].

‡ S.I. 1969, No. 479, H.M.S.O., 9d. [4p].

§ *National superannuation and social insurance—proposals for earnings-related social security*. Cmd. 3883, H.M.S.O., 6s. 0d. [30p].

|| *Terms for partial contracting out of the national superannuation scheme*. Cmd. 4195, H.M.S.O., 2s. 0d. [10p].

33. The number of postgraduate awards made in 1967-68 was 19,550 at a cost of £9.9m. Provisional figures for 1968-69 were 21,600 and £11.8m respectively.

34. These figures include students who attended full-time courses and initial training at graduate and non-graduate level under the teacher training grant arrangements.

State Scholarships

35. The number of state scholars declined to 33, all medical students who by 1972 should have completed their courses.

Mature State Scholarships

36. Thirty scholarships for mature students were available in 1969 and 20 were awarded. These scholarships are awarded for courses in liberal studies and are available to men and women over the age of 25 who for a variety of reasons were unable to take a university course at the normal age. Applications were received from 132 men and 39 women, all of whom were able to show evidence of continuous study since leaving school, either by attendance at Workers' Educational Association or university extra-mural classes or at full-time residential colleges for adult education, or by various other means of study including correspondence courses. Among this year's successful candidates were a remand home supervisor, a haulage driver, a swimming coach, a housemother, an able-seaman, a betting office manager and a secretary.

37. Since the scheme began in 1947, 611 scholarships have been awarded, 488 to men and 123 to women. Of the 464 students who have so far completed their courses, 407 gained honours degrees, 46 of them with first class honours.

Postgraduate Bursaries

38. In January the Department set up a state bursary scheme in order to meet its commitments under the agreement reached with the local authority associations in 1968 that the central government should assume responsibility for new awards to postgraduate students from the academic year 1969-70. This followed discussions with the Departments concerned and the research councils on the division of responsibility for making such awards. A committee on postgraduate bursaries was established and met twice early in the year to determine how the available bursaries in the Department's scheme should be allocated between the different areas of study. In March quotas of bursaries were offered to universities and establishments of further education for allocation to suitably qualified students. A total of 721 bursaries were offered for courses leading mainly to a diploma qualification and varying in length from 1 to 3 years. Of this total 323 were for art studies, 250 for library studies and 148 for museum studies, linguistics, architecture and other disciplines. The numbers of bursaries eventually taken up in these categories were 306, 247 and 131 respectively, making a total of 684.

39. In addition a few bursaries were reserved for students accepted for certain diploma courses in social administration who were ineligible for assistance from the Department of Health and Social Security or the Home Office. Twenty-four bursaries were offered in this category and 21 were taken up.

Postgraduate Studentships

40. State studentships were again offered for courses lasting not more than one year and major state studentships for courses lasting more than one year but not exceeding three years. Both categories of studentships were available for courses in the humanities leading to a higher degree or to a postgraduate diploma or certificate but excluding in the latter case courses mainly professional or vocational in character.

41. During the summer the Studentship Selection Committee, composed of senior members of academic staffs of universities in England and Wales, under the chairmanship of Dr. A. E. Sloman, Vice-Chancellor of the University of Essex, reviewed 1,465 applications for major state studentships and 939 for state studentships (of which 82 and 5 respectively were within the field covered by the Hayter Report* and 41 and 4 respectively were within the field covered by the Parry Report†). The results were announced in stages as degree results became known. Awards were offered to 964 candidates (604 major and 360 state studentships). The number of major state studentships accepted was 550, and of state studentships 316. Of the successful candidates 866 (28 and 21 respectively from each category) were allowed to postpone their studentships for one year.

d. EDUCATIONAL BUILDING

Educational Building Programmes—Colleges of Education

42. The new style of programming in three stages—"preliminary list", "design list" and "starts programme"—which was described in the 1968 report (Section VI paragraph 42) was extended to the major programme for colleges of education.

Standards for School Premises Regulations

43. In March the Secretary of State made regulations‡ to amend the *Standards for School Premises Regulations, 1959*§. The main purpose of these amendments was to provide standards of accommodation for middle schools, that is, schools where the age range bridges the normal break between primary and secondary education at about 11. These standards were based on development work and studies carried out in the Department and published in Building Bulletin No. 35||. The amending regulations also made changes in the scale of teaching accommodation prescribed for secondary schools, modified the provisions relating to nursery schools, and introduced miscellaneous changes to take account of educational and technical developments.

* *Report of the Sub-committee on Oriental, Slavonic, East European and African Studies*, H.M.S.O., 6s. 6d. [32½p].

† *Report of the Committee on Latin American Studies*, H.M.S.O., 7s. 0d. [35p].

‡ *The Standards for School Premises (Middle Schools and Minor Amendments) Regulations, 1969*, S.I. 1969, No. 433, H.M.S.O., 9d. [4p].

§ S.I. 1959, No. 890, H.M.S.O., 2s. 0d. [10p].

|| H.M.S.O., 16s. 0d. [80p].

44. The circular which announced the new regulations, also introduced arrangements for costing middle schools.

45. Metric analogues for the amending regulations were published in June 1969 to supplement those previously published for the main regulations.

Building Progress

46. The figures for 1969 and the three previous years are as follows :—

TABLE 23.—*Educational Building 1966–1969(i)*

£ millions

	Value of projects started in:—				Value of projects completed in:—				Value of work under construction at end of 1969
	1966	1967	1968	1969	1966	1967	1968	1969	
<i>Major projects:—</i>									
Primary and secondary schools ...	77.9	103.6	92.3	80.0	63.6	81.8	90.9	95.2	131.9
Further Education ...	17.1	33.7	17.9	25.1	18.4	18.6	14.0	24.9	51.0
Colleges of Education	6.6	5.3	6.5	4.0	7.9	5.5	8.7	6.1	5.7
Special Schools and school health projects ...	4.5	4.5	4.2	6.2	2.7	4.9	5.3	4.5	7.2
Total ...	106.1	147.1	120.9	115.3	92.6	110.8	118.9	130.7	195.8
Other Projects ...	29.7	34.8	35.0	29.9	27.9	32.6	34.2	30.3	12.6
All Projects ...	135.8	181.9	155.9	145.2	120.5	143.4	153.1	161.0	208.4

(i) The figures do not include site purchase, professional fees or the cost of furniture and equipment.

Further and Higher Education

47. Work continued in collaboration with the U.G.C. and S.E.D. to review accommodation standards, costs and methods of cost control in institutions of higher and further education. A small group was set up to study the problems involved in the development planning of the new polytechnics.

Building Productivity Group

48. Work continued on developing a new partition in collaboration with the South Eastern Architects Collaboration (S.E.A.C.) and the Second Consortium of Local Authorities (S.C.O.L.A.) and the manufacturers. It was agreed that production should be on the basis of a smaller programme than that originally envisaged and this inevitably led to a number of design changes.

49. The programme of work on common component performance standards was virtually completed. It has been agreed that they should be published by the Department as soon as possible as Design Notes.

50. The work with the full size demonstration rig at the Building Research Station for establishing component assembly conventions was completed early in 1969. The agreement reached with the consortia on these conventions will be taken into account in the design of their new metric Marks. Work is going ahead on establishing rather similar conventions for jointing.

51. Other work undertaken during the year included the collection and analysis of site manpower statistics and the development of common contractual procedures for consortia.

Development Projects

52. Delf Hill Middle School, Bradford, was completed and taken into use in January. Numbers were building up during the year and a full appreciation of the buildings will not be possible until they have had a period of full use.

53. The design for the Maiden Erlegh and Manchester Comprehensive Schools is continuing, with the aim of starting the projects in 1971. The Manchester project was expanded to include a college of further education. Further design studies were made and an integrated plan prepared for the whole site.

54. A design study was completed in collaboration with architects and educators in the Derbyshire County Council for extensions to Henry Fanshawe School at Dronfield. This study, which has particular relevance to the problems of remodelling and extending existing buildings to form comprehensive schools, was published as a Design Note*.

55. The range of school furniture designed in association with the Consortium of Local Authorities Special Programme (C.L.A.S.P.) and the Ministry of Public Building and Works was placed in the hands of a commercial firm for marketing. Collaboration with the firm on matters of price and design continues.

Laboratories Investigation Unit

56. The Unit published a discussion paper†, putting forward ideas on how laboratories may be designed conveniently and economically to accommodate the changes in use which they undergo. A project is now being sought in which these ideas may be developed in practice.

57. At the same time, papers on other aspects of laboratory design are being prepared, and a report is being drawn up on the research study on electrical supplies which was started last year.

Technical Unit for Sport

58. The 1968 report‡ referred to the establishment of a Technical Unit for Sport. This professional team has since been engaged in advising the Department and also the Ministry of Housing and Local Government on physical recreation projects for public use. As a result the members of the Unit are becoming familiar with current trends and are building up a store of information on cost and design. It is intended that this will lead, first, to a development project for a 25-metre swimming pool. The experience gained from that work, which will be concerned with planning, standards of construction, engineering services and running costs, should give guidance

* Design Note 2: *Henry Fanshawe School, Dronfield, Derbyshire*. Free from the Department, Architects and Building Branch, Curzon Street, London, W1Y 8AA.

† LIU Paper 1: *An approach to laboratory building*. Free from the Department, Architects and Building Branch.

‡ *Education and Science in 1968*, Section II, paragraph 151; Section VI, paragraph 58.

for future schemes elsewhere. Later, when circumstances allow, similar work will be carried out on medium-sized sports halls and, after that, on sports pavilions.

Consortia

59. The year was mainly one of consolidation for the educational building consortia. Having increased the proportion of all school building for which they are responsible from approximately 10 per cent to between 35 and 40 per cent during the last five years, they tended to concentrate more on development work and less on further expansion of their building programmes.

60. C.L.A.S.P. introduced their new and improved Mark IVB version and continued development on the metric Mark V, due in service in 1972. Computer programmes handled bills of quantities amounting to £8 million and the newly developed Building Industry Code was used for all system documentation.

61. Computerised control of their building programme was also introduced by S.C.O.L.A., and in preparation for the introduction of the metric Mark conference was held at Shrewsbury, at which members, suppliers and contractors discussed building requirements.

62. S.E.A.C. also concentrated on development work related to their metric Mark III, scheduled for full scale introduction towards the end of 1971. Several prototypes will be erected in 1970.

63. One of the biggest programme increases was that recorded by the Consortium for Method Building (C.M.B.), whose programme value in 1969-70 was some 60 per cent higher than that of the previous year. At the same time the central development team was reorganised whilst continuing its work on the production of a metric Mark.

64. The fully metric Consortium of Local Authorities in Wales (C.L.A.W.) system progressed further during the year with the erection of prototypes of the two basic methods of structure, one fully industrialised and the other a rationalised traditional system. Preparation for a pilot programme of 4 schools in North Wales and 2 in Glamorgan was well in hand, and development of a multi-storey system was expected to start in the near future.

65. The Anglian Standing Conference (A.S.C.) set up a multi-professional study group to look at all aspects of method of working, construction and documentation, in relation to the needs of the 1970's and with particular reference to the metric Mark.

66. The building programme for the Organisation of North Western Authorities for Rationalised Design (O.N.W.A.R.D.) increased by approximately 60 per cent during 1969. The establishment of a Services Advisory Group has enabled the development of mechanical and electrical services to be considered in conjunction with the development of the metric Mark III scheduled for introduction in 1972. Services will thus be fully integrated with the structure in all Mark II buildings.

67. The newest consortium, the Metropolitan Authorities Consortium for Education (M.A.C.E.) began its first two fully metric pilot projects in Surrey and Croydon. The system, which will be used for buildings up to four storeys, has been designed specifically to provide protection against aircraft and traffic noise, both constant sources of disturbance to teaching in the M.A.C.E. area.

68. The Counties Furniture Group (C.F.G.) now includes 13 full and 9 associate members, an increase in the last 12 months of 2 full and 6 associate members*. The demand for this furniture range has increased again during the past year by 30 per cent. The new science range developed during 1968 is now in supply and in good demand.

69. The Consortium of Local Education Authorities for the Provision of Science Equipment (C.L.E.A.P.S.E.) increased its membership to 47. During the year the Development Group received visits by groups of teachers from the Centre for Curriculum Renewal and Education Development Overseas, the British Council and member Authorities. Members of the Group have visited schools and colleges for the purpose of maintaining liaison with teachers. This year the Development Group participated in the members' section of the A.S.E. exhibition at Bristol.

70. Member authorities in the Local Authorities School Meals Equipment Consortium (L.A.S.M.E.C.) have now equipped 1,500 school kitchens in England and Wales with the L.A.S.M.E.C. heavy kitchen equipment. At present the Consortium is assisting in establishing a new British Standard for the L.A.S.M.E.C. range of heavy equipment. Proposals regarding the future of the Consortium are being considered including a proposal for the Consortium to co-operate with a building consortium.

Publications

71. Two new Design Notes were produced by the Department during the year. Design Note 2 (see paragraph 54), describes a project of the Department to remodel and enlarge an existing school to provide a mixed comprehensive school for pupils aged 14–18 years. Design Note 3, *Demonstration Rig: Component Fixing Conventions*†, describes the work carried out on a small rig sponsored by the Department to demonstrate the concepts put forward in Building Bulletin 42, *The Co-ordination of Components for Educational Building*‡.

* The Northamptonshire County Council (and not the Northampton Borough Council as stated in *Education and Science in 1968*, Section VI, paragraph 70) has been associated with the CFG since its inception. The Northampton County Borough became a full member in 1969.

† Free from the Department, Architects and Building Branch, Curzon Street, London, W1Y 8AA.

‡ H.M.S.O., 5s. 9d. [29p].

2. General

a. NEW LEGISLATION

72. The Secretary of State said in March that he envisaged publishing during 1970 a Green or White Paper on revision of the Education Act. As a first stage, a wide range of bodies with educational interests were invited to comment, and a number of others subsequently sent in views indicating the changes they wished to see. These were under consideration within the Department during the year and consultations were also held with the main educational bodies and the Churches. In the light of the opinions expressed, the Secretary of State hoped to issue his own proposals for legislative change in the first half of 1970.

b. EDUCATIONAL PLANNING

73. The Department's Planning Branch, in conjunction with other branches concerned undertook 3 main planning exercises during the year. The first was a detailed projection of future student numbers and costs in higher education during the next decade. This served as a background for discussions undertaken by Ministers on this subject towards the end of the year with the U.G.C., the Vice-Chancellors, the A.U.T. and the N.U.S.

74. Secondly, Planning Branch, with the co-operation of a small group of local education authorities and their teachers, launched a pilot cost effectiveness study of the educational provision for pupils of 16 to 19 years of age in a variety of schools and further education establishments.

75. Thirdly, work was in progress during the year in preparation for the application within the Department of a system of programming-planning-budgeting (P.P.B.). This was based on a feasibility study of this system (under its previous title of "Output Budgeting") which had been completed at the beginning of the year and was subsequently submitted to the Select Committee on Procedure, and mentioned in the Committee's First Report.

76. Preparations were well advanced by the end of the year for the publication of a new series of occasional planning papers covering, among other topics, the first and third of the 3 mentioned above. The object of these papers will be to provide information and discussion, largely of a quantitative character, relevant to educational planning issues.

c. EDUCATIONAL RESEARCH

77. A sum of £273,800 was committed during the year in support of 33 research projects. These are listed in Appendix H. The total commitment for the 130 projects current at the end of the year was £1,076,000. 26 projects supported by the Department were completed during the year and are listed in Appendix G. Expenditure during the year exceeded £517,000 which includes £75,700 spent on projects commissioned for the Schools Council (Section I, paragraph 55), £40,100 for the Committee on Research and Development in Modern Languages (paragraph 83), and

£10,120 on projects for the Public Schools Commission (Section I, paragraph 42). Summaries are given below of some of the projects approved during the year to illustrate the range of research currently supported.

78. *Reading Survey.* The National Foundation for Educational Research has been commissioned to conduct the sixth in a series of national surveys of reading attainment in schools. The series began in 1948 and the last survey was in 1964.

79. *Special Services.* A number of grants were made for research connected with school children with special needs:

The University of Birmingham School of Education started work on a research centre for the education of visually handicapped pupils. The project, proposed and mainly financed by the Royal National Institute for the Blind, will investigate the development of teaching apparatus and methods in schools for the blind. The centre will provide a focal point for the development of new techniques for the teaching of blind children. The National Bureau for Co-operation in Child Care was given a grant to examine the possible effects on children of mothers going out to work. The study will relate to a large and representative group of children born in 1958. A survey of these children was carried out shortly after birth and the first follow-up mounted 7 years later.

A grant was made to the Nuffield Child Psychiatry Unit, University of Newcastle-upon-Tyne, to study changes which occur in seriously mal-adjusted children as a result of the different types of management which care for them.

80. *Universities.* An additional grant was made to the University of Cambridge School of Architecture to continue the study on the rationalisation of the use of university buildings and land in urban areas. The additional work will, among other aspects, look at factors which influence the internal design of university buildings, the relationship of different buildings on the campus and the relationship of the institution to the surrounding community.

81. *Further Education.* The further education staff college at Blagdon, Bristol has been given a grant to meet the cost of preparing case study material for use in training in college and school administration.

Committee on Research and Development in Modern Languages

82. During 1969 the Committee and its 4 sub-committees continued to consider various aspects of modern languages and their teaching, received applications from researchers for financial support for their projects, and received reports from those already supported.

83. Applications for support for 16 research and development projects were received during the year, of which 8 (listed in Appendix H) were recommended to the Department. Some of the projects recommended were also receiving financial support from other sources. Two applications were forwarded to the Schools Council.

84. Special meetings included a conference of invited participants on *Aims and techniques: language teaching methods and their comparative assessment*, the report of which was published under the same title by the Centre

for Information on Language Teaching (C.I.L.T.) for the Committee. (The report of a previous conference, *Languages for Special Purposes*, was also published in 1969.) Two further specialist conferences are planned for early 1970. Other special groups met to discuss Committee-sponsored work on the production of materials for language teaching beyond A-level; the teaching of Russian; and the production of teaching materials by commercial publishers. The Working Group set up in 1968* jointly with the National Council for Educational Technology continued to meet.

Centre for Information on Language Teaching

85. In developing its work of providing information on language teaching and associated research, the Centre has considerably extended its publications programme. In addition to *Language-Teaching Abstracts* and *Language-Teaching Bibliography* (now being revised for a second edition) it published in 1969 a total of over 30 leaflets, lists of teaching materials and reports—some priced, others free of charge—for the benefit of language teachers. (A full list is obtainable from the Centre.†) The Centre's research register has considerably expanded and it is planned to publish it in 1970. A survey of current research into spoken language undertaken on behalf of the Council of Europe has been completed.

86. The Centre has continued to service the Committee on Research and Development in Modern Languages, and has organised meetings and conferences on its behalf. It has, on this Committee's recommendation recently begun a survey of the conduct and content of existing courses in English provided for immigrant teachers (see Appendix H).

87. The reference library jointly maintained by the Centre with the English-Teaching Information Centre of the British Council now contains over 22,000 volumes, nearly 3,000 tapes, discs and filmstrips, and files about 355 periodicals.

d. EDUCATIONAL TECHNOLOGY

National Council for Educational Technology

88. During its second full year of existence, the National Council for Educational Technology consolidated the pattern it prescribed for itself during the formative period. Priority was given to the application of educational technology in areas of greatest need and whilst much energy was devoted to projects bearing immediate results, the Council also laid down plans for long-term development programmes.

89. Activities during the year included work on a project carried out in conjunction with the School Broadcasting Council to produce and study materials designed to help children from deprived backgrounds to learn more effectively (the Bernard Van Leer Foundation has granted £69,000 to support the project); and publication of a proposal to develop self-instructional materials in mathematics for which finance is being sought.

* See *Education and Science in 1968*, Section VI, paragraph 81.

† The Secretary, Centre for Information on Language Teaching, State House, High Holborn, London, W.C.1.

The production of "packages" of materials for use in courses relating to the principles and practice of educational technology, the publication of a programme for action on computer-assisted learning for consideration by the government, and the encouragement of an experiment in the application of tape/slide presentation to the training of medical students, also featured in the year's work.

90. The dissemination of information on educational technology continued to be one of the Council's chief concerns. Projects were started on the selection and classification of multi-media materials in physics ; and 2 research fellows were appointed, to work respectively on the classification of information in educational technology and on the use of resource centres in colleges of education. In addition a number of short courses for senior administrators and an international seminar on computer-assisted learning were sponsored.

91. During the year the Council launched its first publications, including the report of its first year or so of activity *Towards More Effective Learning*, a summary of this report, a pamphlet on copyright in new media and 4 papers resulting from its deliberations at the Greenwich Conference in 1967.

The Educational Foundation for Visual Aids

92. The Department continued its support of the Foundation through grants towards the work of its Experimental Development Unit, its programme of training courses and the National Audio-Visual Aids Centre. By the end of the year the move of the Film Library, re-named the National Audio-Visual Aids Library, from Weybridge to Gipsy Hill, and of the National Audio-Visual Aids Centre from Gipsy Hill to a more central location in North London, were completed. This provided both with greatly increased accommodation. All the Foundation's activities expanded substantially in 1969. 1,500 attended the training courses and the Demonstration Centre, now containing both equipment and materials, had over 2,500 visitors. The Experimental Development Unit published 16 technical reports. Twenty-two teaching films were completed ; 3 new series were launched—*New Shakespeare*, *Nobel Laureates* and *Art & Reality*—and additions were made to existing series such as *We Make Music*. There was also a significant increase in publications. Two regional conferences and exhibitions were held in Leeds and Cardiff. Over 10,000 delegates attended the National Conference and Exhibition which was, for the first time, held at Olympia. By the end of the year plans were in hand for the World Audio-Visual Conference, which will be supported by UNESCO and the International Council for Educational Media (I.C.E.M.) and is to be held at Olympia in July 1970.

Courses

93. Courses for teachers on educational technology, audio-visual aids, programmed learning and educational television were again included in the Department's programmes and competition for places on these courses continued to be keen. In addition a feature of many "subject courses" was the part that could be played by different media.

Language Laboratories

94. During the year the Ministry of Technology published the report* on the second survey of language laboratories mentioned in the 1968 report†. The report, which covers some 20 laboratories, gives information on how the survey was conducted ; it describes the facilities available with each set of equipment and compares them with a specification prepared by the Ministry of Technology.

Programmed Learning

95. In 1969 the National Centre for Programmed Learning continued its work on the application of programming techniques to audio-visually presented lessons, and on the integration of programmed learning and practical work. As its main co-ordinating function the Centre sponsored meetings of organisers of local programmed learning centres to exchange experience and discuss common problems. Work also included collections of informative descriptions of programmes ; one covering psychology is about to be published. A second edition of a bibliography of programmes in the health sciences is also nearing completion. In collaboration with the Programmed Instruction Centre at Enfield College of Technology the Centre surveyed research and development activities in programmed learning in Europe : the survey will form the basis of a meeting called by the Council of Europe to co-ordinate developments in this field, with special reference to out-of-school education.

96. The Association for Programmed Learning and Educational Technology held its first International Conference at Goldsmiths' College, London during April. Some 500 delegates attended, including 120 from overseas. During the year the Association published a Yearbook‡ which besides listing 2,000 programmes, contained a section on equipment of various types and one designed to show what use is being made of programmed learning in education and industry.

Closed Circuit Television

97. Work continued on extensions to the I.L.E.A. system and it is expected that by 1970 some 1,400 institutions will be able to receive programmes. In addition a second mobile unit, to serve voluntary colleges of education, was brought into use and plans were put in hand which will lead to the opening of a channel for the transmission of programmes for higher education in 1970. The year also saw the opening of a closed circuit television system in Kingston upon-Hull.

98. Membership of the National Educational Closed Circuit Television Association, which is open to educational bodies and other organisations using and possessing suitable television equipment for general educational purposes, continued to increase during the year. The Association held its first annual conference at Birmingham in April, regular national and regional

* *Report on the Assessment of Language Laboratories*, Royal Aircraft Establishment Technical Report 69100. Available (price £1) from the Ministry of Technology, Station Square House, St. Mary Cray, Orpington, Kent.

† *Education and Science in 1968*, Section VI, paragraph 88.

‡ *Yearbook of educational and instructional technology 1969-70 incorporating Programme in Print*, Cornmarket Press, £2 10s. 0d. [£2.50].

meetings were held and publication of the Bulletin mentioned in last year's report* continued. Included in the objectives of the Association are the establishment of appropriate educational and technical standards, the promotion of high production standards and working contacts at all levels and the encouragement of the exchange of experience and information on all matters relating to educational television.

Broadcast Radio and Television

99. The content and output of school broadcasting reflected the efforts of those responsible to meet present-day curriculum needs, new approaches to learning and the requirements of teachers. Although the proportion of secondary schools equipped to receive television remained fairly static, the proportion of junior and infants schools so equipped rose to 66 per cent and 20 per cent respectively. Audience measurement for a series of programmes is a difficult problem but it is expected that a recent agreement between the School Broadcasting Council and the Education Office of the Independent Television Authority to send out a joint questionnaire, will provide more precision in this area.

100. Details of school broadcasts and supporting material are well publicised by the broadcasting authorities but the following series are mentioned as an illustration of the range and variety of programmes available: *Poetry Corner*, a radio series for infants; Yorkshire T.V.'s *My World* for first year infants; *Look and Read*, a B.B.C. television series for backward readers in the 8-11 age range; *Experiment*, a sixth form physics series produced by Granada Television in which an unusual degree of participation is required of pupils during the programme; and *Science Extra*, broadcast by the B.B.C. in association with curriculum development.

101. In further education and professional training broadcasting has not only played a valuable basic part but has also helped to bring about changes in educational practice. It has been of considerable importance in keeping teachers and others aware of current trends and developments in education and training. In addition, efforts were increasingly directed towards seeing that in initial and in-service courses for teachers due attention is paid to the potential of broadcast programmes. The further education output also reflected a developing commitment to lecturers in colleges and adult education centres as well as to viewers at home.

e. HIGHLY QUALIFIED MANPOWER

Dainton Report

102. There was continuing interest and widespread discussion about the report of the Working Group under the chairmanship of Dr. F. S. Dainton on the flow of candidates in science and technology into higher education†, which was published in February 1968. The Department took practical steps to implement recommendations of the report in the spheres for which it is directly responsible. It continued to develop its statistics to show the flow

* *Education and Science in 1968*, Section VI, paragraph 95.

† *The Flow of Candidates in Science and Technology into Higher Education*, Cmnd. 3541, H.M.S.O., 14s. 6d. [72½p].

of pupils through all educational routes into employment. It sponsored research projects to improve the effectiveness of mathematics and science teaching in schools and to establish the factors that affect pupil choice and motivation. The campaign to attract more graduates in mathematics and scientific subjects into teaching was continued.

Swann Report

103. There was much interest and discussion also about the issues raised in the report of the Working Group under the chairmanship of Professor M. M. Swann, on the flow into employment of qualified scientists, engineers and technologists*, published in September 1968. Comments were invited from those bodies who would be directly concerned in implementing the recommendations made in the report. These revealed that action had already been taken to match provision for post-graduate studies more closely with the requirements of employment, especially in industry; and that active steps were being taken to tackle some of the related problems identified by the report.

Other Enquiries

104. The Working Group under the chairmanship of Dr. G. S. Bosworth, which was set up by the Committee on Manpower Resources for Science and Technology, continued its work under the aegis of the Ministry of Technology with a study on training in manufacturing technology.

105. The Working Group under the chairmanship of Professor J. G. Ball, which was set up by the Committee on Manpower Resources in January 1967 to examine and report upon the use of engineers, technologists and scientists in employment and to consider what changes might be required to meet current and future developments, submitted a closing statement summarising its work to the Secretary of State in January.

1971 O.E.C.D. Conference on Training and Utilisation

106. Preliminary work was undertaken in collaboration with the Department of Employment and Productivity and the Ministry of Technology to prepare discussion papers for the 1971 O.E.C.D. Conference on the Utilisation and Training of Highly Qualified Manpower.

Earnings of Highly Qualified Manpower

107. Work proceeded on the analysis of a survey of earnings of highly qualified manpower which was conducted as a follow-up of the 1966 sample Census of Population. (A sample of 15,000 of those who returned qualifications in the Census and 5,000 of those who did not report qualifications, but were in occupations where there was a high proportion of qualified people, were asked to state their incomes.) This analysis was intended to cast light on a number of manpower and higher education issues, including the economic returns to higher education.

* *The Flow into Employment of Scientists, Engineers and Technologists*, Cmnd. 3760, H.M.S.O., 17s. 6d. [87½p].

f. STATISTICS

108. A continuing theme in the development of education statistics over the past few years has been the need to integrate the statistics for different sectors of education, firstly by the use of common definitions and classifications, and secondly by the measurement of the flows of students and teachers through the system from one activity to another. Another theme has been the need to integrate statistics of educational "stocks" (numbers) and flows with the statistics of stocks and flows of people outside the educational system including those in employment, particularly highly qualified manpower. A third theme has been the need to interrelate education statistics to economic data through the development of, for example, cost analyses and rate of return studies. These themes are concerned not only with describing and measuring the past and present situations but also with providing a base for projections and models. They found international expression and recognition at a meeting on education statistics held in December in Geneva under the auspices of the Conference of European Statisticians, UNESCO, I.L.O. and the Economic Commission for Europe, at which the United Kingdom was represented. The meeting noted that one way of moving towards these objectives was to build up education and manpower statistics within the framework of a matrix of stocks and flows (on the lines of an "input-output" matrix); and that an individualised data system for students and teachers provided the most flexible method of measuring the flows.

109. In 1969 further steps were taken by the Department towards creating an individualised data system for purposes of education statistics, in continuation of the steps described in previous reports. Details are given below. An important element in these plans was the formulation of safeguards to ensure that information collected about any individual for statistical purposes was not divulged.

110. Work on educational projections and models using the matrix of flows as the starting point continued in academic units supported by grants from the Department*. Within the Department a new study was made of the projections of school population and school-leavers, as a result of which some radical changes were made in the projections for the higher age groups in school. There were consequential significant effects on the projected numbers in higher education during the next 15 years or so.

111. The Department's statistical and planning activities increasingly depend on the efficient functioning of its data processing unit. With the putting into service of the new I.C.L. 1904E computer at Darlington in May, efforts were made to strengthen the working links between the Department's Automatic Data Processing Unit and its Statistics Division. This had the aim not only of improving the timeliness of the Department's published statistics but also of making fuller use of the augmented facilities for statistical analysis. A limiting factor however is the timeliness and accuracy with which authorities and institutions submit data to the Department. Continuing difficulty is being experienced in this respect, particularly in the case of information on teachers' movements which is needed to up-date the central record of teachers.

* See *Education and Science in 1967*, Section VI, paragraph 100.

Individualised Data System

112. Planning work continued on an individualised data system for students in the further education sector, and further discussions took place with the educational authorities and associations concerned. The Report of the Working Group on Further Education Student Statistics, revised in line with the comments received from the associations, was issued to all local education authorities and further education establishments towards the end of the year. A questionnaire accompanied this report, asking the colleges to give their comments on the timing, costs and problems of implementing an I.D. system in this sector. In the autumn some 14 volunteer institutions undertook a special pilot exercise in the use of individualised data to test our methods and identify practical problems.

113. The "1 in 30" sample surveys of students in further education undertaken in November 1967 and November 1968 were further analysed and another sample survey instituted in November 1969. The extension of the surveys to collect individual data about all students on courses for C.N.A.A. degrees, rather than only a sample, was further developed.

114. In the university field, promising results were achieved in the experimental scheme for an individualised central record for undergraduate students admitted in 1968, which was carried out by the Universities Central Council on Admissions on behalf of the Committee of Vice-Chancellors and Principals, the University Grants Committee and the education departments. The extension of this scheme to admissions in October 1969 went ahead as intended. Planning continued on the corresponding schemes for postgraduate students and staff.

115. Some first experiments were made on the technical problems of linking together the individual data the Department receives on school-leavers (which are on a "1 in 10" sample basis) with the individual data in respect of entrants into higher education. The experiments used names and dates of birth as the principal identifying data for linking purposes and showed some promise. Consideration was also given to the possible extension of the individualised concept within the school statistics.

Projections

116. Revised projections, to 1990, for school populations were published in *Statistics of Education 1968, Volume 1, Schools** in October. So far as numbers staying on beyond compulsory school leaving age were concerned, the new projections took account of accumulating evidence pointing to a distinct up-turn, during the preceding 2 or 3 years, in the propensity to stay on. Projections to 1986 of school leavers had appeared in *Statistics of Education 1967, Volume 2, G.C.E., C.S.E. and School Leavers†* in July, but the corresponding volume for 1968 will incorporate up-dated projections in line with the latest school population projections. Preliminary revised figures of qualified school-leavers in the 1970's and 1980's were, however, released towards the end of 1969.

117. The new school-leavers figures were embodied in a new projection of numbers in full-time higher education. The substantial increase in numbers in higher education in this new projection, as compared with earlier

* H.M.S.O., £1 10s. 0d. [£1.50].

† H.M.S.O., £1 10s. 0d. [£1.50].

projections (e.g. in the Robbins Report), provided the starting point for discussions between the Department and a number of outside interests on future developments in higher education (see paragraph 73).

Publications

118. A further series of statistics of education volumes were published or sent to the printer during the year. The publication timetable was delayed by a number of factors, particularly transitional problems concerned with the change-over in processing from the ICL 1301 computer to the ICL 1904E.

119. Final preparation was completed on the second volume of the special survey undertaken in autumn 1965 of the curriculum and deployment of teachers in secondary schools. This volume is due to appear in 1970 and will deal with curricula, sizes of teaching groups and some further analyses of teacher deployment.

120. The Department again collaborated with the U.G.C. in producing a consolidated volume of statistics relating to universities: *Statistics of Education, 1967, Volume 6, Universities**.

121. The volume of United Kingdom education statistics for 1967 prepared in collaboration with the Scottish Education Department, the Ministry of Education, Northern Ireland and the U.G.C. was sent to the printer for publication in 1970. It includes details of a revised subject classification for purposes of education statistics; an earlier version had appeared in *Statistics of Education, 1965, Part 2*.

g. AUTOMATIC DATA PROCESSING

The Department's Computers

122. During the year all work was transferred from the ICL 1301 computer in London to the new Darlington computer—an ICL 1904E—and the London installation closed in November. The two main tasks being performed by the Darlington computer are the processing of the central record of teachers for the purpose of administering the teachers' pensions, salaries and qualifications schemes and the processing of statistics. Much of the latter work is of a developmental kind. Although the new computer has more than twice the processing power of the earlier machine it is already being employed regularly on a three-shift basis for 5 days of the week.

Joint Working Party on Teachers Records

123. Action was taken throughout the year to implement the recommendations in the Working Party's second report of June 1968†. Two local authorities having IBM 360 and ICL 1900 series computers have agreed in principle to develop the common logical system for maintaining teachers' records and assessing the salaries of teachers. A code list showing the codes currently in use and those proposed for the common system was issued in October. The design of the common forms which will also be required for the common system is being finalised in the light of comments received

* H.M.S.O., £2 2s. 6d. [£2·12½].

† See *Education and Science in 1968*, Section VI, paragraph 106.

from local authorities. A first edition of a Data Interchange Handbook was issued in June, specifying the form in which the Department would be able to accept data from local authorities on mechanised media, e.g. on magnetic tape. Arrangements already exist for authorities' computers to communicate directly with the Department's computer in certain fields.

h. LOCAL GOVERNMENT

124. The report for 1968* explained the circumstances in which councils of boroughs and urban districts with a population of 60,000 or more could make application for excepted district status under Section 52 of the Local Government Act 1958 during the 6 months following 23rd July 1968. During the period a total of 9 such districts made application and directions were issued in 6 cases constituting the area an excepted district for the purposes of Part III of the First Schedule to the Education Act 1944. The 3 remaining districts agreed not to press their claims until the Report of the Royal Commission on Local Government in England had been published. In addition 3 rural district councils which had no prescriptive right to excepted district status made application on grounds of special circumstances. The claims of 2 of these areas were rejected during the year: the other one is now being pressed by the council concerned.

125. The Royal Commission on Local Government in England published its Report in June. The main recommendation of the Commission was that England (outside the Greater London area which was not within the Commission's terms of reference) should be divided into 61 new local government areas each covering town and country and with a minimum population of around 250,000. In 58 of these a single authority should be responsible for all services. In the 3 large conurbations around Birmingham, Liverpool and Manchester responsibility for services should be divided in each case between a metropolitan authority whose key functions would be planning, transportation and major development, and a number of metropolitan district authorities whose main functions would be education, the personal social services, health and housing.

126. The Commission recommended that the 61 new local government areas should be grouped with Greater London in 8 provinces each with an indirectly elected provincial council responsible for settling provincial strategy and the planning priorities within which the main authorities would operate.

127. Within the 58 unitary areas, and within the metropolitan areas if this was wanted, local councils should be elected to represent and communicate the wishes of cities, towns and villages in all matters of concern to the inhabitants and with the power to spend money for the benefit of their areas. The local councils would have opportunity to play a part in some of the main local government services on a scale appropriate to their resources and subject to the agreement of the main authority.

128. The Commission's recommendations profoundly affect the education service. In place of the present county and county borough local education authorities the unitary authorities and, in the metropolitan areas, the metropolitan district authorities would be local education authorities. The number

* *Education and Science in 1968*, Section VI, paragraph 116.

of local education authorities in England outside the Greater London area would thus be reduced from 125 to 78, the present distinction between town and country would be eliminated and the system of delegation of educational functions to divisional executives would be discontinued.

129. Announcing the publication of the Commission's Report to the House of Commons the Prime Minister said that the Government accepted in principle that a major rationalisation of local government was called for, that there should be a marked reduction in the number of units with executive responsibility, and that the division between town and country should be ended. He hoped that the Government would be able to announce its decisions on the Commission's proposals quite shortly. Officers of the Department have taken part in discussions and consultations on the Commission's proposals but by the end of the year no decisions had been announced.

i. LIBRARY

130. The library's total stock now amounts to over 183,000 books, of which 6,908 were added during the year. H.M. Inspectors' library now has over 31,634 books, 746 being added during the year, while 165 books were added to the Tann Collections of Books for Use in Primary and Middle Schools.

131. All aspects of the library's work increased during 1969. Over 5,300 books were lent to the Department's staff and to other libraries, and a total of 8,088 books were sent out to 94 teachers' short courses. The Tann Collections went on exhibition 36 times.

132. Over 1,000 visitors, both from home and overseas, used the library for reference and research. The library gave assistance and advice in connection with the celebration of the centenary of the 1870 Education Act both within the Department and to outside bodies. The library entertained a Council of Europe working-party of experts on new educational documentation techniques in February.

133. Plans to mechanize the library's bibliographical techniques came nearer completion during the year. New author and classified subject catalogues, utilizing automatic tape typewriters, have been started and the Twentyman classification scheme, compiled by the Board of Education's first Librarian, Mr. A. E. Twentyman, was brought up-to-date. The old chronologically-arranged subject catalogue of pre-1969 material, invaluable for research into the history of education remains available ; eventual publication of this is being considered.

j. INFORMATION SERVICES

134. The Department continued its efforts to meet an increasing demand from the press and the public for information about the work of the Department and of the education service generally. All sections of the Information Division—press and broadcasting, publications and briefing, and publicity and exhibitions—expanded their activities. Preparations for the celebration of the centenary of the 1870 Education Act were a feature of work in the second half of the year ; the Division provided the secretariat for a Centenary Working Party which was widely representative of all bodies concerned with education.

Press, broadcasting, etc.

135. More than 400 press notices were issued and there was a further increase in the number of press enquiries. Occasions were arranged for the Department's Ministers to meet press, radio and television journalists and visit educational and scientific establishments. There was in particular a substantial increase in the number of press conferences held outside London as part of an enlarged programme of ministerial visits, and these gave local and regional press and broadcasting opportunities of meeting and interviewing Ministers. A number of special briefings for education and science journalists were held during the year and arrangements were made for a party of education correspondents to visit a teachers' centre in the North West.

136. The increase in broadcasting coverage of education and science noted in the 1968 report* was sustained. The increase was most marked on education topics; these are now being handled by a growing number of broadcasters well informed on current developments. The Department gave help to, among others, two new television series on education: the B.B.C. *The Education Programme* and Yorkshire Television's *100 Years at School*. In collaboration with the C.O.I. the Department has arranged interview and filming facilities for an increasing number of overseas broadcasting organisations including those from the Federal Republic of Germany, Japan, Canada and Italy.

137. Information on a wide range of education subjects was distributed in response to nearly 1,000 written enquiries during the year, and many hundreds of personal and telephone enquiries were handled in the Department's Enquiry Room.

Publications

138. During the year the Department's quarterly journal *Trends in Education*† gained several hundred more new readers and is now well established as the most widely read educational quarterly. Every issue dealt with curriculum topics, and other articles included school organisation, teacher training and aspects of education abroad.

139. New editions of two Education Pamphlets, *Music in Schools*‡ and *Schools and the Countryside*§ were published, and two entirely new pamphlets, *Learning about Space* and *Commercial Studies in Schools* were with the printer at the end of the year. The sixth Education Survey *Peripatetic Teachers of the Deaf*|| was also published.

140. Eight further *Reports on Education*¶, providing information on general educational topics and developments, were issued on the following subjects:

No. 52 *Building Programmes*—An explanation of procedures up to 1968–69 and of the changes effective from 1969–70. (January).

* *Education and Science in 1968*, Section IV, paragraph 125.

† H.M.S.O., 3s. 6d. [17½p] per issue. Annual subscription 16s. 0d. [80p].

‡ H.M.S.O., 12s. 6d. [62½p].

§ H.M.S.O., 10s. 6d. [52½p].

|| H.M.S.O., 4s. 0d. [20p].

¶ Free from the Department, Room 107, Curzon Street, London, W1Y 8AA.

- No. 53 *Education Expenditure*—Illustrating the growth and distribution of expenditure on education. (February.)
- No. 54 *Grants to Students*—A review of the situation since 1960 and an explanation of some aspects of the system of awards. (March.)
- No. 55 *Counting School Teachers*—Detailed information about numbers of teachers in training, and of full-time teachers in maintained, primary and secondary schools. (May.)
- No. 56. *The Open University*—A history of the concept and a survey of the preparations. (June.)
- No. 57 *The Public Library Service Today*—A description of the service as it affects the adult community in general. (July.)
- No. 58 *Religious Education, Present and Future*—A report of a seminar sponsored by the Secretary of State. (September.)
- No. 59 *Local Radio and Education*—A summary of a survey of the possibilities for education through local radio. (December.)

141. A new series of occasional publications entitled *Science Policy and Organisation Bulletin** was launched. Its purpose is to inform those interested about the scale, cost and purpose of publicly financed scientific activity; to demonstrate to the scientific community the government's interest in and support for research; and to stimulate the interest of young people in science as a career. A mailing list of recipients in science, industry and education was being built up during the year. Titles published in 1969 were:

- No. 1 *The Education and Employment of Scientists*—a basis for discussion in the light of recent reports on scientists and technologists. (February.)
- No. 2 *Scientific Interchange*—the schemes open to British scientists and technologists to interchange with their counterparts abroad. (April.)
- No. 3 *The Information Problem*—a discussion of how the collection, storage and retrieval of literature for scientists and technologists might best be organised. (October.)

142. In the series *Education Information** wide circulation was given to a pamphlet on *Metrication in Schools*, a discussion in general terms of some of the problems involved in the introduction of metric measurements in primary and secondary schools, and in particular, questions of timing, together with a list of relevant publications.

143. The annual booklet *Signposts to Higher Education* was revised and some 240,000 copies were issued in the spring through L.E.A.s to senior pupils in secondary schools. The booklet provided information on where to seek full details about courses in universities, further education establishments and colleges of education.

144. A new free booklet *After "A" Levels* was published in February 1969 and distributed on a one-for-one basis to sixth-formers and A-level/OND/ONC students in further education colleges. The booklet described

* Free from the Department, Room 107, Curzon Street, London, W1Y 8AA.

opportunities for higher education in the polytechnics and other colleges offering advanced level courses, and contained lists of courses, subjects and colleges. All L.E.A.s ordered copies and over 160,000 were distributed. A second edition was published in October and over 190,000 copies were distributed by L.E.A.s to schools and colleges.

145. The year also saw the publication of a new booklet in the *Open Course Bulletins** series: No. 4—*National Awards in Business Studies* was published in April. Two other booklets in the series are in preparation (one on language courses, the second on courses in the sciences) and are expected to be published during 1970. The *Bulletins*, which are free of charge, cover particular aspects of further education for which there is a special need for more publicity and information, and the series has aroused great interest on the part of schools, industry and the general public.

Publicity

146. An advertising campaign was run from December 1968–March 1969 aimed at increasing the number of well qualified graduates in mathematics and science who take up teaching as a career. The opportunity was taken to draw attention to the competitive salaries for good graduates on entering teaching and the good prospects for advancement in these specialised fields.

147. A number of local education authorities placed advertisements in local papers in support of the nationally organised local information service† as well as holding press conferences and special exhibitions. Local Advisory Officers and the Department conducted a minor survey to ascertain who used the Service and whether enquirers were able to find a suitable course of higher education as a result of the help and information provided. The survey indicated that enquirers greatly appreciated the Service, and that the number of enquiries had increased in many areas by up to 50 per cent over 1968. L.A.O.s felt that this could be partly accounted for by the wide coverage of the Service by the national press.

Exhibitions

148. In September 20 display units were introduced for use at school careers conventions, open days and other functions for school-leavers and those who advise them. Each unit comprises seven linked panels containing visual and textual information on further education opportunities and includes a regional map showing the range and location of colleges within the region. Demand for the units—which are available on free loan—has been encouraging: over 260 provisional bookings were made during the four months September to December 1969, a demand which exceeded expectations. It is estimated that nearly 140,000 people saw the displays at over 230 sitings during the four-month period. Additional units have been ordered to meet demands during 1970.

149. In addition to work on annual events, a considerable amount of effort was deployed during the year on three major events, two of which will take place in 1970. The first was the exhibit prepared for the Oceanology

* Available free. Enquiries to The Editor, Department of Education and Science, Room 106, Curzon Street, London, W1Y 8AA.

† See also Section II, paragraphs 33–35.

Conference and Exhibition at Brighton in February 1969. Here the Department took the lead in the staging of a national exhibit showing the work in oceanographic technology of certain establishments responsible to the Natural Environment Research Council (N.E.R.C.), the Ministry of Technology, the Ministry of Defence and the U.K. Atomic Energy Authority. Of the thousand or so square feet available 700 were occupied by N.E.R.C. or N.E.R.C. sponsored establishments, and among the exhibits were ones provided by the National Institute of Oceanography, and the Marine Biology Associations of England and Scotland and the many university units sponsored by N.E.R.C. The conference was opened by the Secretary of State for Education and Science.

150. The two major events for 1970 for which a considerable amount of preparatory work was done are the exhibition which will be one of the main events in the celebrations of the Centenary of the 1870 Education Act and the Science and Education contribution to the United Kingdom Government display at Expo 70 in Osaka. In addition to these, a considerable amount of work has gone into the preparation for a major exhibition at the Science Museum scheduled to take place over the summer six months of 1971.

151. The Department has continued to make known the work of the Research Councils by staging exhibitions of their collective work at appropriate exhibitions at home and overseas. In the Physics Exhibition at Alexandra Palace in March, the prestige exhibition for scientists, three Research Councils were again brought together in a unified display. Work was displayed from a number of Agricultural Research Council and N.E.R.C. establishments alongside that from the Science Research Council. At the Chelsea Flower Show in May, the display from the A.R.C. research establishments was brought together to one site and represented a considerable increase in the display area from that mounted last year.

152. At Dublin in September the Division undertook a small display jointly with other departments, in support of the International Rehabilitation Society. The British Special Education Service was featured together with aspects of relevant Medical Research Council work.

153. In addition to the projects used last year which included a display on Light Trap, the A.R.C. and N.E.R.C. project in which school children play important parts, a new display was created to represent the S.R.C.'s radio astronomy effort. In connection with this an arrangement was made with Jodrell Bank to assist sixthformers to produce a workable radio telescope for school use. The Science Fair displays were staged at Exeter where the main British Association meeting was held and at Liverpool, Birmingham and Leicester.

154. The Department has continued its work in support of the Inter-departmental Working Party by organising two displays of the Engineers Week exhibition at Newcastle and at Birmingham and with the tour of the mobile exhibition *Technology Today*. These caravans spent a total of 91 days on twenty-six sites during the year, when they were visited by over 360 schools, and they were a feature at the launching of Women In Engineering Year by the then Minister of State for Education and Science, Mrs. Shirley Williams, at Westminster Technical College.

Films

155. The film on engineering facilities in universities, *Engineering Your Future*, made by the Department for the Interdepartmental Working Party, was completed during the year for release early in 1970. Most of the work of scripting and shooting a film about up to date and good teaching practice in schools was completed in preparation for launching during the early summer of 1970. Progress was made with the mathematics and the science films, and a further education film on management training courses was being planned.

156. The Department continued to promote the two films completed last year. The film *Experiment in Teaching* reached the final in the San Francisco festival of short films. Since free-to-borrow terms were extended to this film there has been a dramatic increase in the number of showings.

157. The 22-minute colour film *The Happy Ending* on the opportunities for higher education in the further education system continues to be widely shown to audiences in schools and colleges. In the first nine months of 1969 showings totalled 304; 34 copies of the film are now held by the Central Film Library for free loan to careers officers, careers teachers and college staff.

3. International Relations (Education)*

Visitors and Overseas Visits

158. The Minister of Education for the Slovak Socialist Republic, the Minister of Science and Higher Education for Iran and the Minister of Education for Iran visited this country at the invitation of the Secretary of State. Other Ministerial visitors received by the Secretary of State or Ministers of State included the Minister of Education of the Federal Government of India, the Parliamentary Secretary of Singapore and the Minister of Education for Peru.

159. The number of visitors who came again increased ; official delegations, groups and individuals including politicians, university professors, inspectors, teachers, administrators, architects, journalists and students came from nearly 100 countries. The greatest numbers came from the Federal Republic of Germany, the United States and Japan, with a significant increase in the number of visitors from Latin American countries. Appreciable numbers came from Australia, Austria, Belgium, Canada, Czechoslovakia, France, Republic of Ireland, India, Israel, Italy, Norway, Spain, Republic of South Africa, United Arab Republic, U.S.S.R. and Yugoslavia. Small numbers came from most of the developing nations of the Commonwealth. The visitors were interested in many aspects of education, especially in developments in primary education and in the curriculum, in school building and design, secondary and further education, the youth service, teacher training, physical education and movement, English as a second language and educational technology.

160. Visits to overseas countries enabled members of H.M. Inspectorate to study and discuss matters such as language teaching, civics education, mathematics teaching, problems of transition from school to higher and further education, and developments in secondary and technical education.

a. OTHER INTERNATIONAL CO-OPERATION

Conference of European Ministers of Education

161. The Sixth Conference of European Ministers of Education was held at Versailles from 20th–22nd May. Twenty one European countries were represented and officials of the Council of Europe, O.E.C.D., UNESCO, and the Commission of the European Communities also attended. The Secretary of State led a small official delegation representing the U.K. The general theme of the conference was “Educational Opportunity for All” and two reports were presented for discussion: the first presented by the Secretary of State related to “The educational needs of the less academically gifted child with stress on the final years of schooling”, and the second presented by the French Minister of Education related to “The nursery school and primary school in relation to the demands of educational opportunity for all”.

Council of Europe

162. The Department was represented at both meetings of the Council for Cultural Co-operation and at the main committees concerned with higher

* International Relations (Science) is dealt with in Section V, paragraphs 28–44.

education and research, general and technical education, out-of-school education and the programme committee. Experts nominated by the Department at the request of the Council attended a number of meetings in Strasbourg and other specialists were nominated to participate in courses, seminars and meetings organised by other member countries of the Council of Europe. Assessment and guidance in upper secondary education, the place of audio-visual aids in modern language teaching, history teaching in lower secondary schools, the further training of teachers, radio and television instruction, sport and educational documentation were some of the fields studied. A course, lasting five weeks, in July to August, was organised jointly by the British Council and Ealing Technical College to teach English for beginners to 30 European youth leaders. Research in adult education was the theme of a further course lasting eight days in July organised by the Department, but directed by the University of Liverpool Professor of Extra-mural Studies. Some 40 delegates and observers attended from member countries and international organisations.

O.E.C.D.

163. The Department was represented at the two sessions of the Committee for Scientific and Technical Personnel and at two meetings of the Educational Investment Planning Group, at one of which a paper on the organisation of educational research in the United Kingdom was presented. Preparatory work for the Conferences to be held in 1970 on Educational Growth and on the Education and Utilisation of Highly Qualified Manpower also involved the Department. A beginning was made with a review of Educational Policy and Planning in the U.K., which the Department had agreed to prepare for examination by other countries: the review document is intended for eventual publication.

164. The Department continued to co-operate in the work of the Centre for Educational Research and Innovation by acting as host to a Workshop on the Management of Educational Innovation held at Cambridge and by participating in other joint projects with member countries. It was also involved in preparatory work for seminars in 1970 on Computer Education, Curriculum Innovation and Educational Technology.

UNESCO

165. Departmental assessors attended meetings of the U.K. National Commission for UNESCO and its committees. The Department continued to advise the Ministry of Overseas Development on educational matters arising in UNESCO. A member of H.M. Inspectorate represented the Department at a meeting of governmental experts in Paris on the problems posed at international level by the development of space communication.

International Bureau of Education

166. From 1st January the I.B.E. became a centre of comparative education financed wholly by UNESCO. The International Conference on Public Education, for which UNESCO and the I.B.E. have been jointly responsible since World War II, was not held in 1969. The next Conference will take place in 1970 when the main theme will be the improvement of the effectiveness of education systems, particularly through reduction of wastage at all levels of education.

National Council for the Supply of Teachers Overseas

167. Departmental assessors attended meetings of the National Council for the Supply of Teachers Overseas, its Standing Committees and other Committees.

Mixed Commissions and Cultural Exchange Programmes

168. The Department was represented at meetings of the Mixed Commissions set up under the Cultural Conventions with Belgium, Germany and Luxembourg.

169. A new Anglo-Soviet Cultural Agreement covering the years 1969–71 was signed in Moscow in March. A total of 25 students from colleges of education, departments of education and universities attended a 30-day course in Moscow at Easter under arrangements made by the Educational Interchange Council. Arrangements for other reciprocal visits were made by the British Council. In the summer vacation, 34 teachers of Russian attended a 30-day course in Russia and a similar number of Russian teachers visited the United Kingdom. Under the cultural programme with Czechoslovakia, the Educational Interchange Council arranged an exchange of 27 teachers-in-training.

The Schools and International Affairs

170. Circular 12/69 of July 1969, besides bringing up to date information about sources and material on international affairs, drew attention to (i) the resolution adopted by the 23rd Session of the General Assembly of the United Nations encouraging teaching in schools about the purposes and principles of the Charter of the United Nations and the structure and activities of the United Nations and the specialised agencies with particular reference to human rights ; and (ii) the recommendation of the 31st International Conference on Public Education in Geneva, 1968, concerning education for international understanding as an integral part of the curriculum and life of the school.

United States–United Kingdom Educational Commission

171. Under the Agreement of 10th May 1965 between the governments of the United Kingdom and the United States of America, the Commission's funds are derived in the proportion of four-fifths and one-fifth from the American and United Kingdom governments. The American administration's decision notified in the autumn of 1968 regarding their allocation of funds to the U.S.–U.K. Educational Commission for 1969–70 led to a drastic reduction in the funds at the Commission's disposal. The programme was, therefore, limited to the renewal of awards to 16 American students already in the United Kingdom, one new award to an American lecturer to come to the University of Belfast and travel grants for both American and British exchange teachers beginning their exchange year in August.

b. COMMONWEALTH EDUCATION CO-OPERATION

172. The Department took part in preparations for U.K. participation in the specialist conference on education in rural areas due to take place in Ghana in 1970. Under arrangements with the Ministry of Overseas Development two members of H.M. Inspectorate were seconded for the full year and four others for periods ranging from one to four months.

The Commonwealth and the United States

173. The League for the Exchange of Commonwealth Teachers arranged 31 exchanges with Australia; 43 with Canada, 16 with New Zealand and, for the first time, 2 with Kenya. Exchequer grants were made to assist British teachers with the cost of travel and in some cases with the higher cost of living.

174. The British Committee for the Interchange of Teachers arranged 60 exchanges with the U.S.A. British teachers were assisted with Exchequer grants in the form of cost of living and dependants' allowances, while assistance with travel costs was given by the U.S.-U.K. Educational Commission.

175. The League and the British Interchange Committee arranged official welcomes and conferences for teachers coming from the Commonwealth and the U.S.A. The annual garden party was held in July and three teachers were presented individually to Her Majesty Queen Elizabeth The Queen Mother, who was the guest of honour.

Central Bureau for Educational Visits and Exchanges (C.B.E.V.E.)

176. The Bureau continued its annual series of information booklets *Youth Visits Abroad*, *Vacation Courses Abroad*, *Working Holidays Abroad*, and *Young Visitors to Britain*.^{*} In addition, a new publication *Educational Exchange* was introduced for educational establishments and organisations interested in international contacts. Over 60,000 individual requests for information were dealt with and advice was given to several thousand group travel enquirers. The Bureau's work on educational links has developed from establishing partnerships between secondary schools to assisting a growing number of local education authorities to set up working relationships with their counterparts in other countries. A new departure in 1969 was the exploring of possibilities of educational links and exchanges with the U.S.A. and opportunities for developing youth and other exchanges with Canada. In October 1969 responsibility for the school correspondence exchange scheme with France was transferred from the Department to the Bureau; likewise the Department's work in issuing Council of Europe Identity Cards.

177. The modern language assistant scheme continued to function successfully and the supply of French assistants wishing to come to this country proved more than enough to meet the demand from British schools. The number of British assistants serving in France, Germany and Italy rose as a number of new posts were offered in these countries. Figures are given in Appendix D.

178. The overall number of teacher interchanges with Europe slightly decreased, though a larger number of teachers wanted to exchange for a full year instead of for one term.

^{*} Free (by post enclose foolscap s.a.e.) from the C.B.E.V.E., 91 Victoria Street, London, S.W.1.

APPENDIX A

Grants offered in 1969-70 to National Voluntary Youth Organisations under the Further Education Regulations 1969

HEADQUARTER GRANTS

Organisation	£
Anglican Young People's Association	250
Army Cadet Force Association	2,200
Association for Jewish Youth	3,475
Baptist Union of Great Britain and Ireland	2,000
Boys' Brigade	6,950
Boys' Clubs of Wales	5,250
British Council of Churches	1,200
British Red Cross Society	2,575
Campaigners	500
Catholic Youth Service Council	3,050
Church Lads' Brigade	2,800
Church of England Youth Council	10,400
Community Service Volunteers	2,500
Concordia	400
Congregational Church in England and Wales	2,575
Co-operative Union	850
Council for Nature	3,850
Council of Social Service for Wales and Monmouthshire	840
Dockland Settlements	550
Duke of Edinburgh's Award	14,450
Elfrida Rathbone Association	1,600
Federation of Eighteen Plus Groups	2,550
Girls' Friendly Society	3,850
Girl Guides Association	14,400
Girl Guides Training Centre "Broneiron", Llandinun	1,800
Girls' Brigade	7,350
Girls' Venture Corps	8,000
International Voluntary Service	6,500
Methodist Association of Youth Clubs	11,000
National Association of Boys' Clubs	49,600
National Association of Youth Clubs	60,500
National Federation of Young Farmers' Clubs	12,550
National Youth Theatre	5,750
Ocean Youth Club	1,025
Outward Bound	1,500
Presbyterian Church of England	1,200
Presbyterian Church of Wales	370
Provincial Youth Council of the Church in Wales	2,000
St. John Ambulance Brigade	2,575
Sail Training Association	1,000
Salvation Army	1,000
Scout Association	16,000
Sea Cadet Corps and Girls' Nautical Training Corps	4,650
Task Force	2,500
The Foudroyant Trust	3,200
Welsh Association of Youth Clubs	9,000
Welsh League of Youth	10,800
Young Christian Workers	5,100
Young Men's Christian Association	30,000
Young Women's Christian Association	18,100
Youth Hostels Association	7,500
	369,635

APPENDIX A—*continued*

SPECIAL GRANTS 1969-70

Organisation								£
Brighton Archways Ventures	...	...	...	...	...	...	...	2,797
Girls Venture Corps	...	...	...	...	...	...	...	458
Liverpool Youth Organisations Committee	...	...	...	...	...	...	...	1,125
Grubb Institute of Behavioural Studies	...	...	...	...	...	...	...	750
Manchester and District Youth Development Trust	...	...	...	...	...	...	...	6,543
National Association of Youth Clubs	...	...	...	...	...	...	...	333
National Association of Youth Clubs	...	...	...	...	...	...	...	4,500
National Trust	...	...	...	...	...	...	...	4,000
University of Leeds	...	...	...	...	...	...	...	1,025
University of Sussex	...	...	...	...	...	...	...	1,505
University College of Swansea	...	...	...	...	...	...	...	1,997
Wiltshire Association of Youth Clubs	...	...	...	...	...	...	...	500
Endeavour Training	...	...	...	...	...	...	...	800
Community Service Volunteers	...	...	...	...	...	...	...	625
								£26,958
Young Volunteer Force Foundation	...	...	...	...	...	...	...	51,000

APPENDIX B

Grants offered in 1969-70 to National Voluntary Sports Organisations under the Physical Training and Recreation Act 1937

Organisation	£
British Sports Association for the Disabled	1,700
Central Council of Physical Recreation	502,533
Council of Social Service for Wales and Monmouthshire	1,775
English Folk Dance and Song Society	16,250
National Playing Fields Association	13,000
Physical Education Association of Great Britain and Northern Ireland	1,200
Sports Turf Research Institute	6,500
Welsh Folk Dance Society	675
All England Netball Association	3,395
All England Women's Hockey Association	4,100
All England Women's Lacrosse Association	1,625
Amateur Athletic Association	27,500
Amateur Basket Ball Association	5,825
Amateur Boxing Association	4,080
Amateur Fencing Association	5,600
Amateur Judo Association of Great Britain	775
Amateur Rowing Association	5,400
Amateur Swimming Association	13,475
Amateur Volleyball Association	700
Badminton Association of England	4,900
British Amateur Gymnastic Association	3,540
British Amateur Weight-Lifters Association	3,110
British Amateur Wrestling Association	1,850
British Canoe Union	5,470
British Cycling Federation	5,725
British Gliding Association	6,150
British Horse Society	4,625
British Judo Association	2,550
British Mountaineering Council	1,235
British Orienteering Federation	1,200
British Parachute Association	2,300
British Sub-Aqua Club	5,850
British Water Ski Federation	2,400
Cricket Council	3,000
Cyclists Touring Club	3,000
English Bowling Association	1,250
English Table Tennis Association	7,625
Football Association	5,000
Golf Development Council	2,195
Grand National Archery Society	2,200
Hockey Association	3,500
Keep Fit Association	2,800
Lawn Tennis Association	6,700
Medau Society of Great Britain and Northern Ireland	2,000
National Anglers Council	3,945
National Ski Federation of Great Britain	3,750
National Small-Bore Rifle Association	70
Ramblers' Association	1,850
Road Time Trials Council	1,000
Royal Life Saving Society	2,440
Royal Yachting Association	2,460
Squash Rackets Association	2,900
Surf Life Saving Association of Great Britain	2,800
Universities Athletic Union	1,400

APPENDIX B—*continued*

Organisation	£
Wildfowlers' Association of Great Britain and Ireland	2,800
Women's Amateur Athletic Association	750
Women's Cricket Association	700
Women's Inter-University Athletic Board	350
Women's League of Health and Beauty	900
Women's Squash Rackets Association	1,780
Football Association of Wales	2,500
Keep Fit Association of Wales	200
Welsh Amateur Basket Ball Association	335
Welsh Amateur Swimming Association	2,300
Welsh Badminton Union	420
Welsh Bowling Association	640
Welsh Hockey Association	700
Welsh Netball Association	220
Welsh Women's Hockey Association	110
Welsh Rugby Union	3,250
Table Tennis Association of Wales	315
Boys' Schools Lawn Tennis Association	225
British Schools Judo Association	375
English Schools Athletic Association	300
English Schools Badminton Association	350
English Schools Basket Ball Association	475
English Schools Cricket Association	425
English Schools Cycling Association	200
English Schools Gymnastic Association	225
English Schools Rugby Football Union	550
English Schools Rugby League	140
English Senior Schools' Football Association	250
English Schools Swimming Association... ..	350
English Schools' Table Tennis Association	100
English Schools Trampoline Association	50
English Schools Volleyball Association	50
Girls' Schools Lawn Tennis Association	225
National School Sailing Association	750
Schools Amateur Boxing Association	350
Welsh Schoolboys Hockey Association	60
Welsh Schools Athletic Association	200
Welsh Schools Football Association	330
Welsh Schools Rugby Union	160
Welsh Schools Swimming Association	100
Welsh Seondary Schools Cricket Association	220
Welsh Secondary Schools Rugby Union	160

APPENDIX C

Grants to National Associations under the Further Education Regulations 1969

Organisations	£
British Drama League	4,500
Educational Centres Association	2,680
National Council of Young Men's Christian Associations	3,380
National Federation of Women's Institutes	5,200
National Union of Townswomen's Guilds	4,680
National Institute of Adult Education	3,000
Rural Music Schools Associations	5,500
Workers' Educational Association	6,900
	35,840

APPENDIX D

(i) Overseas Assistants Serving in England and Wales

	1966	1967	1968	1969
Algerian	—	2	12	11
Austrian	17	29	27	36
Belgian	2	8	16	13
French	1,546	1,807	2,036	1,958
German	368	429	480	510
Italian	10	12	14	17
Moroccan	6	6	12	18
Spanish	139	169	199	192
Swiss	21	39	31	40
Tunisian	—	—	18	29
	2,109	2,501	2,845	2,824

(ii) Assistants from England and Wales Serving in Europe

	1966	1967	1968	1969
Austria	32	34	33	32
Belgium	2	3	3	2
France	757	786	854	900
Germany	217	195	239	239
Italy... ..	10	11	14	23
Spain	30	28	49	39
Switzerland	8	9	14	11
	1,056	1,066	1,206	1,246

APPENDIX E

(i) Orders under the Education Acts, etc.

The following table shows the number and description of the Orders made under the Education Acts 1944 to 1968, together with certain other enactments, during the year 1969:—

Description*	England	Wales
Orders under the Education Acts 1944 to 1968:—		
Classification of Voluntary Schools (Section 15)		
Aided Schools (Primary Schools)	55	—
(Secondary Schools)	4	—
(Comprehensive Schools)	1	—
Revocation of Aided Status (Primary Schools)	10	1
Transfer of School to new site (Section 16(1))	141	5
Substitution of School (Section 16(2))	14	—
Management and Government of Schools (Section 17)		
Instruments of Management (Primary Schools)	84	3
Instruments of Government (Secondary Schools)	26	3
Articles of Government (Secondary Schools)	22	—
Exemption from byelaws (Section 63(2))	4	—
School struck off Register or Teacher disqualified (Section 72)	15	—
Removal of disqualification (Section 74(1))	1	—
Acquisition of Land: Compulsory Purchase Orders confirmed (Section 90)†	70	2
Certificates of Expenses attributable to displaced pupils (Section 104)	25	1
Revocation or Varying Orders (Section 111)	11	—
Establishment of Joint Education Committees (First Schedule Part II)	5	2
Schemes of Divisional Administration Approved (First Schedule Part III)	3	—
Special Agreements approved (Third Schedule)	1	—
Expenses of enlargement, controlled Schools (Section 1, Education Act 1946)	20	—
Division of Schools (Section 2, Education Act 1946)	18	—
Costs of establishing Controlled Schools (Section 2, Education Act 1953)	2	—
Direction that school be deemed Primary or Secondary (Section 1(2), Education Act 1964)	25	—
Under other Acts:—		
Public Libraries Acts: Bye-Laws confirmed	38	—
Powers transferred	2	—
Statutory Orders (Special Procedure) Act 1945 (Section 2(2))	1	—
TOTAL	598	17

* The Sections referred to are Sections of the Education Act 1944, except where otherwise stated.

† There were 10 Public Inquiries held in England in connection with Compulsory Purchase Orders.

APPENDIX E—continued

(ii) Orders under the Charities Act, etc.

The following table shows the number and description of the Schemes and Orders under the Charities Act, or otherwise relating to Charitable Trusts, made during the year 1969:—

Description	England	Wales
Orders establishing Schemes	110	3
Other Orders:—		
for the appointment or removal of trustees	139	7
giving authority to sell, exchange or otherwise dispose of land ...	731	37
for the commutation of rent charges or like payments to Foundations	3	—
giving authority to grant building, mining or other leases or to execute agreements for leases or directions thereon, or to surrender or accept the surrender of leases	114	9
approving the purchase of land or the erection or improvement of buildings, or otherwise relating to loans or capital expenditure for the benefit of Foundations	137	5
pensions or gratuities	17	—
appointing members of committees of management	8	—
varying Orders	8	—
giving authority to sell, exchange or otherwise dispose of land under the Open Spaces Act 1906	5	—
TOTAL	1,272	61

(iii) Schemes under the Endowed Schools Acts

During the year 1969, the number of Schemes dealt with under the Endowed Schools Acts was as follows:*

Issued for publication in draft	2
Finally settled by the Secretary of State and issued for final publication	0
Approved by Her Majesty in Council	2

One of the two approved Schemes was made under Section 86 of the Education Act 1944, as amended by the Education Act 1946, directing that the Endowed Schools Acts, subject to certain modifications should apply to the foundations contained in the Schedule thereto. The area covered by this Scheme is the Diocese of Exeter.

The object of Section 86 Schemes is to enable the endowments of closed church schools, including the proceeds of sale and leases of school premises, to be used for the erection, improvement and enlargement of other schools of the same denomination. Schools which are scheduled to close in the development plans of the local education authorities are included in the Schemes as well as those schools which are already closed, but, when a school which is still open is included, it is provided that the Scheme shall have no effect on it, other than to transfer the trusteeship, until it is closed.

The other approved Scheme concerned Chetham's Hospital, Manchester, being a Scheme altering the provisions of the principal Scheme of 27th May 1952. The principal purpose of this amending Scheme, which was established on 22nd October 1969, was to authorise the admission to the School of the Foundation of girls as well as boys. The Scheme also effected changes in the constitution of the School Committee, in addition to various changes relating to fees, scholarships, allowances and general finance. Other miscellaneous amendments were included in this Scheme, together with prescribed provisions for the exemption of a boy or girl from attending prayer or religious worship or from attending any lesson or series of lessons on a religious subject.

* The figures relate in each instance to the stage of the proceedings which had been reached by the end of the year.

APPENDIX F

Statutory Instruments* made by the Secretary of State during the year

						<i>Net Price</i>	
						s.	d.
The Teachers' Superannuation (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/80	...	6 [2½p]
The Charities (Sir John Soane's Museum) Order 1969	...	...	...	...	S.I. 1969/468	...	1 3 [6p]
The Schools (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/231	...	6 [2½p]
The Further Education Regulations 1969	...	...	...	...	S.I. 1969/403	...	1 9 [9p]
The Special Schools and Establishments (Grant) (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/410	...	6 [2½p]
The Standards for School Premises (Middle Schools and Minor Amendments) Regulations 1969	...	...	...	...	S.I. 1969/433	...	9 [4p]
The Pensions Increase (College of Domestic Arts of South Wales and Monmouthshire) (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/470	...	Not on sale
The Increase of Pensions (Teachers' Family Benefits) Regulations 1969	...	...	...	...	S.I. 1969/479	...	9 [4p]
The Provision of Milk and Meals Regulations 1969	...	...	...	...	S.I. 1969/483	...	1 0 [5p]
The State Awards (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/554	...	6 [2½p]
The National Gallery (Lending Outside the United Kingdom No. 1) Order 1969	...	...	...	...	S.I. 1969/798	...	6 [2½p]
The Remuneration of Teachers (Primary and Secondary Schools) Order 1969	...	...	...	...	S.I. 1969/618	...	6 [2½p]
The Education (No. 2) Act 1968 (Commencement No. 1) Order 1969	...	...	...	...	S.I. 1969/709 (c. 16)	...	4 [1½p]
The Training of Teachers (Amendments) Regulations 1969	...	...	...	...	S.I. 1969/848	...	4 [1½p]
The Provision of Milk and Meals (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/1093	...	6 [2½p]
The Education (No. 2) Act 1968 (Commencement No. 2) Order 1969	...	...	...	...	S.I. 1969/1106 (c. 30)	...	4 [1½p]
The Rate Support Grants (Pooling Arrangements) (Amendment) Regulations 1969	...	...	...	...	S.I. 1969/1107	...	6 [2½p]
The Schools (Amendment No. 2) Regulations 1969	...	...	...	...	S.I. 1969/1174	...	4 [1½p]
The Exempt Charities Order 1969	...	...	...	...	S.I. 1969/1496	...	4 [1½p]
The Transfer of Functions (Physical Training and Recreation) Order 1969	...	...	...	...	S.I. 1969/1497	...	6 [2½p]
The Remuneration of Teachers (Further Education) Order 1969	...	...	...	...	S.I. 1969/1713	...	6 [2½p]
The Schools (Qualified Teachers) Regulations 1969	...	...	...	...	S.I. 1969/1777	...	6 [2½p]
The Remuneration of Teachers (Farm Institutes) Order 1969	...	...	...	...	S.I. 1969/1780	...	6 [2½p]

*Obtainable from Her Majesty's Stationery Office—postage extra.

APPENDIX G

Research projects supported by the Department and completed during 1969

National Foundation for Educational Research	A comparative study of the effects of streaming in primary schools
Dr. G. Baron, London University Institute of Education	A study of the part played in the administration of education by governing bodies of county secondary schools
Dr. R. Lambert, King's College, Cambridge	Research for Public Schools Commission: <ol style="list-style-type: none"> 1. Studies of need and demand for boarding 2. Integration studies 3. Schools and need for boarding 4. Study of girls' schools 5. Study of preparatory schools
Dr. N. Thompson, Institute of Physics and The Physical Society	Research into the formation of multiple-choice tests in G.C.E. 'A' level physics
Mr. E. A. Hewitt (University of Durham), Northern Universities Joint Matriculation Board	An assessment of G.C.E. 'O' level English examinations
National Foundation for Educational Research	English national analysis of the international project for the evaluation of educational achievement (I.E.A.)
Mr. R. M. Murray Rust, University of Reading	Evaluation of Schools Council Nuffield Foundation Primary Mathematics Project
Dr. N. J. Graves, University of London Institute of Education	Pilot enquiry into the teaching of the geography of Asia
Professor K. Austwick, Bath University of Technology	Study of present practices in and objectives of the teaching of visual plastic arts in secondary schools with special reference to the Raising of the School Leaving Age programme
National Foundation for Educational Research	Enquiry into educational research needs as seen by the teacher
Professor P. Taylor, University of Birmingham School of Education	An enquiry into the planning of courses in preparation for the raising of the school leaving age
Mr. J. N. Britton, University of London Institute of Education	Survey of post-war research and experiments in method in the teaching of English
Professor R. D'Aeth, University of Exeter	Research into relationship between parental support and the educational attainment of children in Devon primary schools
Mr. G. M. Hutchinson, National Institute of Adult Education	An assessment, in sample areas, of the adequacy of the provision made for adult education by the agencies concerned
Professor G. N. Brown, University of Keele Institute of Education	A study of factors influencing the output of teachers
Dr. B. Bernstein, London University Institute of Education	A study of the relationship between social class and learning ability
Dr. K. Lovell, University of Leeds Institute of Education	National Council for Educational Technology sponsored conference for senior educational administrators, Leeds
National Council for Educational Technology	Initial study of the potential contribution of educational technology to the needs of culturally deprived children including immigrants
Exporters' Educational Trust Ltd., Diplomatic Service Language Centre	Development of a Language Laboratory course in Hindi/Urdu
Dr. M. Blaug, University of London Institute of Education	Measurement of productivity trends in primary and secondary education
Professor A. G. Joselin, University of Aston in Birmingham	Research into the relationship between Youth Service and the schools
Professor W. D. Furneaux, Brunel University, Department of Education	Research into the provision of a course for the H.N.C. in electrical and electronic engineering including the use of programmed learning for students unable to attend day instruction

APPENDIX G—*continued*

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| Professor S. Wiseman, University of Manchester School of Education | Survey of teachers' attitudes to in-service training |
| Dr. T. Blackstone, London School of Economics | Survey of requirements for research into nursery education |
| National Council for Educational Technology | Production of a brochure for a market survey on the familiarisation course in educational technology |
| Professor T. W. Thacker, University of Durham School of Oriental Studies | Investigation of modern spoken standard Arabic |

APPENDIX H

Research projects commissioned or accepted for grant aid by the Department in 1969

Special Services

Professor J. Tizard, University of London Institute of Education	Setting up of a Medical Examination for school entrants, incorporating items which will identify neuro-developmental disorders likely to interfere with learning or behaviour
Professor G. E. R. Burroughs, University of Birmingham School of Education	Establishment of a Research Centre for the education of the visually handicapped
Mr. R. Davie, Deputy Director, National Bureau for Co-operation in Child Care	Investigation of the possible effects upon children of mothers going out to work
Dr. I. Kolvin, University of Newcastle, Nuffield Child Psychiatry Unit, Hospital for Sick Children	A study to assess change relative to the management of seriously maladjusted children
Professor D. Pond, University of London, London Medical College	An enquiry into the roles of the services for maladjusted children
Dr. M. L. Kellmer-Pringle, National Bureau for Co-operation in Child Care	Review of research literature on diagnosis and residential treatment for children coming into care. (Jointly sponsored with the Home Office)

Schools—Curriculum

Dr. S. Wiseman, National Foundation for Educational Research	A survey of attainment in reading
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Further Education

Mr. G. E. Wheeler, Further Education Staff College, Blagdon, Bristol	Preparation of case study material on college and school administration
Mr. E. M. Hutchins, National Institute of Adult Education	Investigation of sources of research into adult education which have been undertaken in Britain in recent years

Teacher Training

University of Nottingham Institute of Education	Survey of specially trained immigrant teachers
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Sociology in Education

Mr. Eric Hoyle, University of Manchester, Department of Education	A review of existing research into the needs and achievements of gifted children
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Educational Technology

National Council for Educational Technology	Selection and classification of multimedia physics materials
National Council for Educational Technology	A study of the role of design in relationship to the development of machine-orientated systems for education. (To be undertaken by the Royal College of Art)
National Council for Educational Technology	A study of the feasibility of co-ordinated purchasing of equipment and materials needed to apply educational technology
National Council for Educational Technology	An investigation into the use of resource centres in colleges of education
Professor G. M. Wilson, University of Glasgow	Research into the development of self-instruction materials in medical education
Mr. J. Thomas, Brunel University, Department of Education (for N.C.E.T.)	An investigation into the efficiency of using a time-shared computer to teach problem solving in secondary schools

Architects and Building Projects

Professor Sir Leslie Martin and Mr. L. Marsh, University of Cambridge, School of Architecture	Further grant to continue work on floor space requirements and land use for universities in urban areas
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APPENDIX H—*continued*

Modern Languages—Projects commissioned for the Committee on Research and Development in Modern Languages

National Foundation for Educational Research	Development of a series of proficiency tests in English for use with immigrant children in primary schools. (Stage II)
Mr. F. E. Knowles, University of Salford, Department of Education	Production of an intensive Polish language course designed to reach a linguistic standard of university intermediate
Mr. G. E. Perren (Director), Centre for Information on Language Teaching	Survey of the conduct and content of existing courses in English provided for immigrant teachers
Professor D. C. Twitchett, University of Cambridge, Faculty of Oriental Studies	Research into intensive methods for the teaching of Modern Chinese
Society for Research into Higher Education	Achievement in German language: a sample survey of Universities and Colleges
Miss L. E. Ingamells and Mr. P. Standish, Queen Mary College, University of London	Project for research and development of advanced teaching materials in Spanish
J. M. C. Davidson, Association of Teachers of Russian	Survey of the supply, utilisation and demand for teachers of Russian in British secondary schools
Mr. A. Spicer, University of York	Survey of initial training provision in colleges and departments of education for language teachers
Mr. E. R. Abborton, University College, London	A laryngographic analysis of the teaching of intonation

Schools—Projects commissioned for the Schools Council for Curriculum and Examinations

Chelsea College of Science and Technology	Nuffield Secondary Science Project (13–16 age range) C.S.E. examinations; financial support for additional staff for final year of study
Mr. D. A. Tawney, University of Keele	Evaluation of the Schools Council Project Technology
University of Oxford Institute of Education	The preparation, assessment and selection of 6th formers for university: a survey of current practice in other countries
Mr. P. J. Kelly, Chelsea College of Science and Technology	A survey of the educational use of living organisms
Professor N. Smart, University of Lancaster	Project to evolve research and materials relevant to a programme of religious education in secondary schools which will take into account the existence of voluntary schools and the presence of non-Christian populations in this country

APPENDIX I

Publications

(i) Parliamentary Papers

£ s. d.

<i>Command 3950</i>	...	Education and Science in 1968	...	...	14	6	[72½p]
<i>Command 4028</i>	...	Report of the National Libraries Committee	...	...	1	8	0 [£1.40]
<i>Command 4006</i>	...	Report of the Computer Board for Universities and Research Councils	...	...	4	0	[20p]
<i>Command 4023</i>	...	Grants for the Arts	...	...	1	9	[9p]
<i>Command 4044</i>	...	Export of Works of Art 1968-69. 16th Report of the Reviewing Committee	...	...	5	6	[27½p]

(ii) Non-Parliamentary

The use of costing and other financial techniques in technical colleges. A Report by the National Advisory Council for Education in Industry and Commerce	...	...	...	14	6	[72½p]
The collection of Residual Data. A Report by the Advisory Committee on Pesticides and other Toxic Chemicals	...	...	...	4	6	[22½p]
The Open University. A Report by the Open University Planning Committee	...	...	...	4	0	[20p]
Scales of Salaries for Teachers in Primary and Secondary Schools 1969	...	...	...	7	0	[35p]
Report of the Arbitral Body on Salaries for Teachers in Establishments of Further Education	...	...	...	3	6	[17½p]
Report of the Committee on Technician Courses and Examinations	...	...	...	12	6	[62½p]
Youth and Community Work in the 70s. A Report by the Youth Service Development Council	...	...	...	15	0	[75p]
Report of the Committee on Scales of Salaries for Teaching Staff in Colleges of Education	...	...	...	3	0	[15p]
Scales of Salaries for Teachers in Establishments of Further Education in England and Wales 1969...	...	...	...	7	0	[35p]
A Further Review of Certain Persistent Organochlorine Pesticides used in Great Britain	...	...	...	12	6	[62½p]
Scales of Salaries for the Teaching Staff of Farm Institutes and for Teachers of Agricultural (including Horticultural) Subjects in England and Wales 1969	...	...	...	6	0	[30p]

Education Pamphlets

No. 27	...	Music in Schools (New edition)	...	12	6	[62½p]
No. 35	...	Schools and the Countryside (New edition)	...	10	6	[52½p]

Education Surveys

No. 6	...	Peripatetic Teachers of the Deaf	...	4	0	[20p]
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Lists

No. 10	...	Index to Department of Education and Science Circulars and Administrative Memoranda current on 1st January 1969	...	6	6	[32½p]
No. 42	...	List of Special Schools for Handicapped Pupils in England and Wales	...	15	0	[75p]

Reports on Education (Unpriced)

No. 52	...	Building Programmes	...	January
No. 53	...	Educational Expenditure	...	February
No. 54	...	Grants to Students	...	March
No. 55	...	Counting School Teachers	...	May
No. 56	...	The Open University	...	June
No. 57	...	The Public Library Service Today	...	July
No. 58	...	Religious Education Present and Future	...	September

APPENDIX I—continued

										£	s.	d.	
No. 59	...	...	Local Radio and Education	...	December							
<i>Trends in Education</i>			Annual subscription (H.M.S.O.) including postage							16	0	[80p]	
No. 13	...	...	Children at Risk; Experiments in Welfare; Suntrap Field Centre; Dialogue with the Young; Educational Philosophy; Graduates for Primary Schools; "Bosworth" Courses; Management Studies; Africa's Educational Priorities—January	...	...	...	...	...	...	3	6	[17½p]
No. 14	...	...	Modern Mathematics; The New History; Sixth Form Physics; General Studies; Education of Immigrants; The Disadvantaged Child; Educational Courses; Co-Education—April	...	...	...	...	...	...	3	6	[17½p]
No. 15	...	...	School Management; The Creative Arts; Education in Austria; School Design; Teaching Classics; Economics in Schools; Languages for Everyone; Work Experience; The CNAA—July	...	...	...	...	...	...	3	6	[17½p]
No. 16	...	...	Growing up in the Sixties; The Generation Gap; Education for Motherhood; Primary Maths; Sociological Research; Integrated Education; School Practice; In-Service Training USA—October	...	...	...	...	...	...	3	6	[17½p]
<i>On Course</i>			Termly Journal of Education for Industry and Commerce										
No. 12	...	...	January	...	...	...	...	...	...	Unpriced		
No. 13	...	...	April	...	...	...	...	...	...	Unpriced		
No. 14	...	...	June	...	...	...	...	...	...	Unpriced		
No. 15	...	...	Autumn	...	...	...	...	...	...	Unpriced		
<i>On Course Bulletins</i>			Leaflets for schools and employers about aspects of further education										
No. 4	...	...	National Awards in Business Studies	...	...					Unpriced		
<i>Project</i>			A magazine about engineering for science fifth and sixth formers										
No. 9	...	...	Spring	} Annual Subscription for three issues (H.M.S.O.) including postage					...	15	0	[75p]
No. 10	...	...	Summer									
No. 11	...	...	Autumn									
<i>Youth Service</i>			A magazine for those in the field							5 0 [25p]
												(Annual subscription for 10 issues)	
<i>Science Policy and Organisation Bulletins</i> (Unpriced)													
No. 1	...	...	The Education and Employment of Scientists	...	...	...	...	February				
No. 2	...	...	Scientific Interchange	...	...	...	...	April				
No. 3	...	...	The Information Problem	...	...	...	...	October				
<i>Other Publications</i>			Grants to Students 3. For Postgraduate Study in the Humanities—State Bursaries							Unpriced			
			Science Policy Studies No. 4. "An Attempt to Quantify the Economic Benefits of Scientific Research"							4 0 [20p]
			Education Information Leaflet:										
			Metrication in Schools							Unpriced
			Signposts to Higher Education (1969)							Unpriced
			After "A" levels (1969)							Unpriced
<i>Jointly with Min. Tech.</i>			Statistics of Science and Technology							1 2 6 [£1.12½]
			Animals (Restriction of Importation) Act 1964										
			Advisory Committee. Summary of Statistics										

APPENDIX I—continued

	£	s.	d.	
year ending 31st December 1969	4	0		[20p]
Principal Documentary Evidence submitted to the National Libraries Committee				
Volumes I and II	22	0	0	[£22] (for both volumes)
Scientific Research in British Universities and Colleges, 1968–69				
Volume I. Physical Sciences SBN 11 270126 4	3	5	0	[£3·25]
Volume II. Biological Sciences SBN 11 270127 2	3	2	9	[£3·12½]
Volume III. Social Sciences SBN 11 270128 0	3	0	0	[£3]
Bound copy of Circulars and Memoranda issued during the period 1st January 1969 to 31st December 1969	1	12	6	[£1·62½]

Statistics of Education

Statistics of Education 1966				
Volume 6. Universities	2	0	0	[£2]
Statistics of Education 1967				
Volume 3. Further Education	17	1	6	[87½p]
Statistics of Education 1967				
Volume 2. GCE, CSE and School Leavers ...	1	10	0	[£1·50]
Statistics of Education 1967				
Volume 6. Universities	2	2	6	[£2·12½]
Statistics of Education 1968				
Volume 1. Schools	1	10	0	[£1·50]

Schools Council

Working Papers

No. 21	The 1966 CSE monitoring experiment	8	0	[40p]
No. 22	The middle years of schooling from 8 to 13 ...	7	6	[37½p]
No. 23	Teaching classics today—A progress report ...	3	6	[17½p]
No. 24	Rural studies in secondary schools (Evans/ Methuen Educational)	4	0	[20p]
No. 25	General studies 16–18 (Evans/Methuen Educa- tional)	3	3	[16p]
No. 26	Education through the use of materials: the possible role of school workshops in the education of secondary school pupils (Evans/ Methuen Educational)	5	0	[25p]

Examinations Bulletins

No. 19	CSE: Practical work in science (Evans/Methuen Educational)	5	0	[25p]
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Field Reports

No. 6	Project in compensatory education	Unpriced
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Committee for Wales

Wales Science Bulletin No. 2	Unpriced
Y Gymraeg Mewn Addysg : Wynebn'r Dyfodol (Welsh in Education: Facing the future)—report (in Welsh) of the national Conference, Cardiff 1968	Unpriced

Other Publications ...

Humanities for the young school leaver: an approach through history (Evans/Methuen Educational)	5	0	[25p]
Humanities for the young school leaver: an approach through religious education (Evans/ Methuen Educational)	5	3	[26p]
Schools Council Report 1968–69 (Evans/Methuen Educational)	7	6	[37½p]
i.t.a.—an independent evaluation (John Murray (Publishers) Ltd. and R. W. Chambers Ltd.)... ..	4	0	0 [£4]

Curriculum Bulletins

Mathematics in primary schools (3rd edition) ...	10	0	[50p]
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APPENDIX I—continued

		£	s.	d.
<i>Pamphlets</i> ...	First year: An account of the work of a teachers' centre	Unpriced		
	Practical problems: an account of the organising of early experiments in enquiry work	Unpriced		
	Foundation stones 1966-68: An account of the final two year's work of local development groups in a county authority	Unpriced		
	The halfway point: From the Newsom Report to the raising of the school leaving age	Unpriced		
Unpriced publications are obtainable from The Schools Council, 160 Portland Street, London W1N 6LL.				

National Lending Library for Science and Technology

Translation Bulletin Vol. II, Monthly. Annual subscription (H.M.S.O.), including postage ...	3	18	0	[£3·90]
British Research and Development Reports Vol. 4. Monthly	Unpriced			
Index of Conference Proceedings received by the N.L.L. Nos. 16-27. Monthly	Unpriced			
List of Books received from the USSR and Translated Books Nos. 125-136. Monthly	Unpriced			
A KWIC Index to the English Language Abstracting and Indexing Publications currently being received by the N.L.L. 3rd Edition. January	Unpriced			

<i>Russian Book Translations</i>	The Physiology of Heat Regulation and Thermal Adaption in Farm Animals. Slonim, A. D. ...	16	6	[82½p]
	Physics of Aerodynamic Noise. Rimskii-Korsakov, A. V.	10	6	[52½p]
	Storage of Grain. Trisvyatskii, L. A.	3	15	0 [£3·75]
	Welded Heterogeneous Steel Joints. Zemzin, V. N.	1	5	0 [£1·25]
	The Role of Higher Aquatic Plants in the Nutrition of the Animals of Fresh-Water Basins. Gaevskaya, N. S.	2	15	6 [£2·77]
	Problems of the Gas Dynamics of Air Blast of Circuit Breakers. Tseirov, E. M.	1	7	0 [£1·35]
	New Planning Systems in Building. Benza, <i>et al.</i>	10	0	[50p]
	Growing Plants in Artificial Light. Moshkov, B. S.	16	0	[80p]
	Russian Translation Service, Translations Nos. RTS 5054.	(Various prices available from the N.N.I.L.)		

(iii) Circulars and Administrative Memoranda

(issued to local education authorities and, as appropriate, others concerned with the provision and administration of educational facilities).

Circulars

1/69	Employment and distribution of Teachers. The 1969-70 Teachers' Quota	17th January 1969
2/69	Urban Programme—Second Phase	7th February 1969
(Joint Circular Home Office and Dept. of Health and Social Security)		
3/69	Protection of school children against tuberculosis	28th January 1969
4/69	The Standards for School Premises (Middle Schools and minor Amendments) Regulations 1969	31st March 1969
5/69	The Further Education Regulations 1969	28th March 1969
6/69	The future supply and training of librarians	11th April 1969

APPENDIX I—continued

7/69	Provision of milk, meals and other refreshments. (1s.) [5p]	2nd April 1969
8/69	The Education (No. 2) Act, 1968: Colleges of Education	10th April 1969
9/69	Introduction to Industry scheme for Teachers ...	16th April 1969
10/69	Bachelor of Education Degree: Arrangements for Serving Teachers	20th May 1969
11/69	Special education for children handicapped by <i>Spina Bifida</i>	28th May 1969
12/69	International Affairs and the Commonwealth in Education	8th July 1969
13/69	School Meals—Remission of the dinner charge (6d.) [2½p]	8th August 1969
14/69	1870 Centenary	28th July 1969
15/69	The Education (No. 2) Act 1968—Special Schools	13th August 1969
295	Education Grants for Service children	18th August 1969
Amendment No. 8		
16/69	The Staffing of the Schools	19th August 1969
17/69	Special Schools and School Clinics—Major Building Programmes. Procedures for 1971– 72 and subsequent years; and transitional arrangements	24th September 1969
4/62	School Leaving Dates—The Family Law Reform Act 1969	10th October 1969
Addendum 18/69	Professional Training for Teachers in Maintained Schools	10th December 1969
19/69	Bachelor of Education Degree: Arrangements for Serving Teachers	16th December 1969
Welsh Circulars		
1/69	St. David's Day, 1969—The National Language Unit	19th February 1969
2/69	Report of the Central Advisory Council for Education (Wales) "Primary Education in Wales". Welsh in the Primary Schools of Wales	19th March 1969
3/69	Central Advisory Council for Education (Wales) Report "Primary Education in Wales". Re- organisation of Primary Education in Rural Areas	10th December 1969
Administrative Memoranda		
1/69	Technical College Resources: the use of Costing and other Financial Techniques	6th January 1969
15/68	One-Year and One-Term Courses of Further training for qualified teachers 1969–70 ...	14th January 1969
Addendum 2/69	Joint Planning of Industrial Training and Further Education—Craft Studies Courses in Engineer- ing	20th January 1969
3/69	Teachers' Superannuation: Actuarial Valuation 1961–66	20th February 1969
4/69	Family Pension Benefits for Teachers	28th March 1969
5/69	Move of certain Branches of the Department of Education and Science to new premises ...	17th March 1969
6/69	Decimal currency	11th April 1969
7/69	Salary Scales for Teachers in Primary and Secondary Schools	29th April 1969
9/68	Interchange of Teachers and Assistants with overseas countries 1969–70	28th May 1969
Amendment 8/69	Fees for Quantity Surveyors	2nd June 1969

APPENDIX I—continued

9/69	Arts Facilities in educational and other establishments	15th July 1969
10/69	Move of certain outstations of the Department of Education and Science to Curzon Street House	6th June 1969
11/69	Interchange of Teachers and Assistants with overseas countries 1970-71	8th July 1969
12/69	Work Experience	19th June 1969
14/68	Metrication in the Construction Industry ...	18th July 1969
Addendum No. 1		
13/69	Residential Sports Bursaries	18th August 1969
<i>Administrative Memoranda</i>		
14/69	National Nursery Examinations Board. Shortened Courses for Mature Students	25th July 1969
(Joint Circular Home Office and Dept. of Social Security)		
15/69	Metrication	29th October 1969
16/69	European Conservation Year—The Countryside in 1970 Conferences	20th November 1966
17/69	Writers in Schools	12th December 1966
18/69	Report of the Committee on Scales of Salaries for the Teaching Staff of Colleges of Education (England and Wales) 1969	21st November 1966
19/69	One-Year and One-Term courses of further training for qualified teachers 1970-71 ...	17th November 1966
20/69	Salary Scales for teachers in establishments for further education	1st December 1969
21/69	Technician Courses and Examinations	16th December 1966
22/69	Salary Scales for the Teaching Staff of Farm Institutes and for Teachers of Agricultural (including Horticultural) Subjects	16th December 1966
23/69	Requests by school pupils for information from public and other bodies	8th December 1969

Priced documents are obtainable from H.M.S.O. (postage extra): unpriced material from the Department of Education and Science unless otherwise stated.